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ABSTRACT

This report contains the results of the ninth application of the Tennessee Technological University Teacher Evaluation Model and an overview of previous reports that have been conducted since 1973. Information on graduates of the teacher education program is used for curriculum evaluation and long range planning. In the first chapter, data collecting procedures are described. The second chapter contains analyses of selected data over an eight year period, including comparisons of bachelor's degree and master's degree level graduates. Chapter III presents and interprets data for the current year of the study (1981) and compares results to those of earlier years. Chapter IV consists of special studies that were completed or partially completed during 1981-1982. Chapter V provides a summary of the report, conclusions, recommendations, and tentative plans for revising the test model in the next year of the study. An appendix lists 62 reports and studies dealing with the teacher preparation programs at the university. (FG)

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STUDY OF THE TEACHER PREPARATION PROGRAMS OF TENNESSEE TECHNOLOGICAL UNIVERSITY

Report 82-2

TENNESSEE TECHNOLOGICAL UNIVERSITY TEACHER EVALUATION MODEL--YEAR IX

Report Prepared By:

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May 1982

Tennessee Technological University

Cookeville, Tennessee 38501

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ABSTRACT

TENNESEEE TECHNOLOGICAL UNIVERSITY TEACHER EVALUATION MODEL--YEAR IX

In 1973 Tennessee Technological University developed and implemented a model for systematic data gathering and for making evaluations of the programs in teacher education. The specific objective of the use of the longitudinal model was the evaluation and subsequent modification and improvement of the programs for the preparation of teachers. During the ninth year (1981-82) of the operation of the project, three distinct groups of graduates who had completed either the bachelor's or master's degrees, with major emphasis in a teaching field participated in the study. The sample size by year of graduation was as follows: 1979, 13; 1980, 27; and 1981, 47. Detailed information was collected on each subject by use of standardized instruments administered by specially trained graduate assistants or from University records. Basic instrumentation and procedures were pilot tested during the first year of the operation of the model and have remained essentially unchanged. Basic instrumentation included: (1) principal's evaluations; (2) the California F-Scale; (3) a measure of the satisfaction of the students of the graduates; and (4) observation by trained observers using Flanders Interaction Analysis, the Classroom Observation Record, and the Tuckman Teacher Feedback Form. All data obtained as a part of the study were classified, coded, and key punched for analysis. Descriptive statistics and comparisons were computed. Also, during the ninth year of the operation of the model, detailed studies were made of all data collected since the beginning of the project and selected special studies were completed.

The major findings of the study for the first year subjects were similar to those reported in the past eight years of the study. Comparisons between the B.S. and M.A. graduates indicated few significant differences. However, the general trend indicated that those individuals with the M.A. were functioning at a higher level.

A study of the first year graduates from the period 1973 through 1980 indicated that both first year B.S. and M.A. graduates appeared similar in their first year of teaching after receiving their degree. Although the trends were not significant, in general scores and ratings have decreased over the eight year period. In many cases B.S. graduates were rated slightly higher than M.A. graduates. The results of the use of correlational analyses indicated the principals, students, and independent observers were in agreement with regard to ratings that had been given the graduates. It appeared the graduates were functioning at a level comparable to national samples.

The results of the study of first year elementary and secondary graduates (1973-80) indicated, in general, elementary graduates were rated higher than secondary graduates; and B.S. graduates were rated higher than M.A. graduates. In most cases there were no significant differences across teaching level.

An examination of the data collected across three years for the 1979 graduates indicated they had achieved lower scores on the NTE and ACT and were less authoritarian in their beliefs than the total group. Principal ratings generally increased across time with M.A. graduates being rated higher than B.S. graduates. Student ratings across time increased for the B.S. group and decreased for the M.A. group. Results of the use of interaction analysis indicated the groups achieved less satisfactory scores during their third year when compared with first year observation. In comparison, results of the use of the Classroom Observation Record and the Tuckman Teacher Feedback Form suggested the individuals in both groups were functioning at their highest level during the third year after receiving their degree.

In addition to collecting data by use of the basic model, several special studies were conducted in conjunction with the project. The full report contains summaries of studies of normative information for the instrumentation used in the basic model and studies of first year literature teachers, use of interaction analysis in teacher education followup studies, consistency of teacher behavior, and verbal interaction patterns in the classrooms of selected teachers.

Based on the results of the study and the applications that have been made in improving the teacher education programs of the University, the model has become a permanent operational feature. Initial plans are being made to improve the overall design of the model based on recent educational research in evaluation methodology and the characteristics of good teaching.

TABLE OF CONTENTS

	Page
ABSTRACT	iii
LIST OF TABLES	vii
LIST OF FIGURES	xiii
PREFACE	xv
Chapter	
I. INTRODUCTION AND PROCEDURES	1
Procedure	3
Summary	9
References	10
II. ANALYSES OF SELECTED DATA ACCUMULATED OVER THE FIRST EIGHT YEARS OF THE APPLICATION OF THE MODEL (1973-80)	11
Profile of First Year Graduates 1973-80	11
Comparison of First Year Elementary and Secondary Graduates	34
Comparison of 1979 Graduates Across Three Years	37
General Conclusions	55
III. PRESENTATION AND ANALYSES OF DATA FOR 1981 GRADUATES AND COMPARISON WITH 1979 AND 1980 GRADUATES	57
Correlational Analyses	57
Comparison of B.S. and M.A. Graduates	57
Comparison of First Year B.S. Graduates 1979-81	61
Comparison of First Year M.A. Graduates 1979-81	66
Summary	75
IV. SUMMARIES OF SPECIAL STUDIES	77
Normative Information	77
A Study of First Year Literature Teachers	79

Page

Use of Interaction Analysis in Teacher Followup Studies 81

Consistency of Teacher Behavior 81

References 83

Verbal Interaction Patterns in the Classrooms of Selected K-3 Teachers 84

References 86

V. SUMMARY, CONCLUSIONS, RECOMMENDATIONS, AND FUTURE PLANS . 87

Summary 87

Conclusions 88

Recommendations 90

Plans for the Continuation of the Study During 1982-83 91

Long Range Plans 92

APPENDIX 93

TABLES

Table		Page
1.	Number of Subjects by Year of Graduation Participating in Each Phase of Study	5
2.	Sample for Intensive Followup - 1981-82	5
3.	Comparison of Sample Sizes Across All Years of Study	6
4.	Number of Subjects by Date of Graduation and County in Which Teaching 1981-1982	8
5.	Correlation Matrix for Selected Variables for All First Year B.S. 1973-80 Graduates Teaching in Grades 7-12	12
6.	Correlation Matrix for Selected Variables for All First Year B.S. 1973-80 Graduates Teaching in Grades K-6	13
7.	Correlation Matrix for Selected Variables for All First Year M.A. 1973-80 Graduates Teaching in Grades K-6	14
8.	Comparison of Mean Weighted Commons Scores (NTE) for First Year B.S. and M.A. Graduates 1973-80	15
9.	Comparison of Mean ACT Composite Scores for First Year B.S. and M.A. Graduates 1973-80	16
10.	Comparison of Mean QPA for First Year B.S. and M.A. Graduates 1973-80	17
11.	Comparison of Mean F-Scale Scores for First Year B.S. and M.A. Graduates 1973-80	18
12.	Comparison of Principal's Ratings for First Year B.S. Graduates 1973-80	21
13.	Comparison of Principals' Ratings for First Year M.A. Graduates 1973-80	22
14.	Comparison of SET-I Scores for First Year B.S. Graduates 1973-80	24
15.	Comparison of SET-I Scores for First Year M.A. Graduates 1973-80	25
16.	Comparison of SET-II Scores for First Year B.S. Graduates 1974-80	26
17.	Comparison of SET-II Scores for First Year M.A. Graduates 1974-80	27

Table

Page

18. Comparison of Flanders Ratios for First Year B.S. Graduates 1973-80 29

19. Comparison of Flanders Ratios for First Year M.A. Graduates 1973-80 30

20. Comparison of COR Factor Scores for First Year B.S. Graduates 1973-80 31

21. Comparison of COR Factor Scores for First Year M.A. Graduates 1973-80 31

22. Comparison of Tuckman Ratings for First Year B.S. Graduates 1973-80 32

23. Comparison of Tuckman Ratings for First Year M.A. Graduates 1973-80 33

24. Comparison of Weighted Commons Scores (NTE), F-Scale Scores, ACT Composite Scores, and Quality Point Average for First Year B.S. Elementary and Secondary Graduates 1977-80 . . . 35

25. Comparison of Weighted Commons Scores (NTE), F-Scale Scores, ACT Composite Scores, and Quality Point Average for First Year M.A. Elementary and Secondary Graduates 1977-80 . . . 35

26. Comparison of Principals' Ratings for First Year B.S. Elementary and Secondary Graduates 1977-80 36

27. Comparison of Principals' Ratings for First Year M.A. Elementary and Secondary Graduates 1977-80 36

28. Comparison of SET-I Scores for First Year B.S. Elememtary and Secondary Graduates 1977-80 38

29. Comparison of Flanders Ratios for First Year B.S. Elementary and Secondary Graduates 1977-80 38

30. Comparison of Flanders Ratios for First Year M.A. Elementary and Secondary Graduates 1977-80 39

31. Comparison of COR Factor Scores for First Year B.S. Elementary and Secondary Graduates 1977-80 39

32. Comparison of COR Factor Scores for First Year M.A. Elementary and Secondary Graduates 1977-80 40

33. Comparison of Tuckman Ratings for First Year B.S. Elementary and Secondary Graduates 1977-80 40

34. Comparison of Tuckman Ratings for First Year M.A. Elementary and Secondary Graduates 1977-80 41

Table

Page

35. Comparison of Mean Weighted Commons Scores (NTE) for 1979 B.S. and M.A. Graduates Across Three Years 41

36. Comparison of Mean ACT Composite Scores for 1979 B.S. and M.A. Graduates Across Three Years 41

37. Comparison of Mean Quality Point Averages for 1979 B.S. and M.A. Graduates Across Three Years 43

38. Comparison of F-Scale Scores for 1979 B.S. and M.A. Graduates Across Three Years 43

39. Comparison of Principal Ratings for 1979 B.S. Graduates Across Three Years 45

40. Comparison of Principal Ratings for 1979 M.A. Graduates Across Three Years 46

41. Comparison of SET-I Scores for 1979 B.S. Graduates Across Three Years 47

42. Comparison of SET-I Scores for 1979 M.A. Graduates Across Three Years 48

43. Comparison of SET-II Scores for 1979 B.S. Graduates Across Three Years 49

44. Comparison of SET-II Scores for 1979 M.A. Graduates Across Three Years 50

45. Comparison of Flanders Ratios for 1979 B.S. Graduates Across Three Years 51

46. Comparison of Flanders Ratios for 1979 M.A. Graduates Across Three Years 51

47. Comparison of COR Factor Scores for 1979 B.S. Graduates Across Three Years 52

48. Comparison of COR Factor Scores for 1979 M.A. Graduates Across Three Years 52

49. Comparison of Tuckman Ratings for 1979 B.S. Graduates Across Three Years 53

50. Comparison of Tuckman Ratings for 1979 M.A. Graduates Across Three Years 54

51. Correlation Matrix for Selected Variables for 1981 B.S. Graduates 58

52. Correlation Matrix for Selected Variables for 1981 M.A. Graduates 59

Table

Page

53. Comparison of Mean ACT Composite Scores, Weighted Common Examinations Scores and F-Scale Scores for 1981 B.S. and M.A. Graduates 60

54. Comparison of Mean Principals' Ratings for 1981 B.S. and M.A. Graduates 60

55. Comparison of Mean SET-I Scores for 1981 B.S. and M.A. Graduates 62

56. Comparison of Mean SET-II Scores for 1981 B.S. and M.A. Graduates 62

57. Comparison of Flanders Ratios for 1981 B.S. and M.A. Graduates 63

58. Comparison of Mean COR Factor Scores for 1981 B.S. and M.A. Graduates 63

59. Comparison of Mean Tuckman Factor Scores for 1981 B.S. and M.A. Graduates 63

60. Comparison of ACT Composite, Weighter Common Examinations Scores of the NTE, and F-Scale Scores for First Year B.S. Graduates 1979-81 64

61. Comparison of Mean Principals Ratings for First Year B.S. Graduates 1979-81 64

62. Comparison of Mean SET-I Scores for First Year B.S. Graduates 1979-81 65

63. Comparison of Mean SET-II Scores for First Year B.S. Graduates 1981-82 67

64. Comparison of Mean Flanders Ratios for First Year B.S. Graduates 1979-81 68

65. Comparison of Mean COR Scores for First Year B.S. Graduates 1979-81 68

66. Comparison of Mean Tuckman Scores for First Year B.S. Graduates 69

67. Comparison of ACT Composite, Weighted Common Examinations Scores of the NTE, and F-Scale Scores for First Year M.A. Graduates 1979-81 69

68. Comparison of Mean Principals' Ratings for First Year M.A. Graduates 1979-81 70

69. Comparison of Mean SET-I Scores for First Year M.A. Graduates 1979-81 71

Table

Page

70. Comparison of Mean SET-II Scores for First Year M.A. Graduates 1979-81 72

71. Comparison of Mean Flanders Ratios for First Year M.A. Graduates 1979-81 73

72. Comparison of Mean COR Scores for First Year M.A. Graduates 1979-81 73

73. Comparison of Mean Tuckman Scores for First Year M.A. Graduates 1979-81 74

74. Normative Data (Percentiles, Means, SD, Range) for F-Scale and Student Evaluation of Teaching 78

75. Normative Data (Percentiles, Means, SD, Range) for Observation Instruments 80

FIGURES

Figure		Page
1.	PERT Chart of Major Activities for 1981-82	4
2.	Number of Participants by County in 1981-82 Phase of the Study	7

PREFACE

For the past 13 years, attention has been given to the evaluation of the graduates of the teacher education programs of Tennessee Technological University. Followup studies of all graduates have been conducted on a regular basis, and special studies have been carried out to provide input for the overall operation of the programs of the University. In order to improve the system of evaluation at the institution, an intensive longitudinal study was initiated in the fall of 1973 of the teacher education programs. This study has been continued each year through 1981-82 utilizing a modified model that was previously developed for evaluating the graduates of teacher education programs. Reports of the results of the application of the Tennessee Technological University Teacher Evaluation Model for the period 1973-74 through 80-81 are available through the ERIC system or from the Office of the Associate Dean of the College of Education of Tennessee Technological University.

The purpose of this report was to present the findings of the ninth year of the application of the model. A secondary purpose of the report was to begin the process of summarizing all of the data and information collected over the past nine years. This was done in anticipation that the project will be modified at the close of ten years of operation. This report will be utilized by the faculty of the University in order to improve the programs for the pre and inservice preparation of teachers. The report is by no means complete; however, it serves to inform the reader of the basic procedures used and the preliminary findings of the ninth year of the study. In order to conserve resources, only essential information was presented. Readers of the report are invited to pose additional research questions and to request additional data from the files of the project.

The author of this report is indebted to the efforts of several individuals that have been extensively involved in working with the project during the past year. These individuals include: Janie M. Evans and Martha B. Swearengin, Graduate Assistants; Lisa Mullinix and Terry Huffman, Secretaries; Sharon A. Heard, Analyst; and John D. Thomas, Associate Professor of Educational Psychology and Counselor Education. In addition, thanks are extended to all principals, teachers, superintendents, and other school personnel that provided technical assistance, data, and allowed the project staff to work with them in various ways.

Jerry B. Ayers
Associate Dean
College of Education
May 1982

CHAPTER I

INTRODUCTION AND PROCEDURES

Beginning in 1970, a series of separate studies was begun related to the evaluation of students enrolled in and graduates of the teacher education programs of Tennessee Technological University. The research has been systematic and designed to meet standards established by the National Council for the Accreditation of Teacher Education, as well as to answer such questions as course effectiveness, the proper sequence of courses, factors related to achievement, success of the graduates after entering the teaching profession, better methods of instruction, and the degree of achievement of the stated objectives of the teacher education program. It should be noted that there are companion studies designed to evaluate the programs for the preparation of school service personnel at the M.A. and Ed.S. levels (see Appendix).

The works of Sandefur and Adams (1-3) led to the development of the Tennessee Technological University Teacher Evaluation Model. This model has been employed to evaluate the graduates of the programs of the University designed to prepare teachers at the bachelor's and master's levels (4). During the 1973-74 school year, the Evaluation Model was implemented and was operated through 1981-82 with funds available from the budget of the College of Education of the University. The results of the application of the model were summarized in a series of yearly reports (see Appendix 20, 27, 34, 37, 39, 45, 54, 59). These reports and others are available through the ERIC system.

The ninth year of the application of the Evaluation Model was initiated in the fall of 1981. The remainder of this chapter describes the purpose of the ninth year of the operation of the model and limitations of and the procedures used in conducting the major parts of the study. Chapter II contains a summary of the analyses of selected data accumulated over the first eight years of the study including comparisons of the results of the application of the model to B.S. and M.A. level graduates. Chapter III contains presentations and interpretations of the data for the current year of the study and comparisons with earlier years. Chapter IV consists of summaries of special studies that were completed or partially completed during 1981-82 (complete reports of the studies are available through the Office of the Associate Dean, the ERIC System, or the indicated professional journals). Chapter V contains a summary, conclusions and recommendations, and tentative plans for the tenth year of the study to be conducted during 1982-83. The Appendix contains a listing of all evaluative studies that have been conducted as a part of the efforts of the Office of the Associate Dean of the College of Education of the University.

Purposes

The purposes of the study reported in this document included the following:

1. To provide information for faculty and administrators concerned with teacher education programs at Tennessee Technological University in making decisions pertinent to curriculum evaluation and development.

2. To aid in the process of making long-range plans for improving the total program of the University with particular emphasis on the teacher education program.

3. To continue the development and refinement of the Tennessee Technological University Teacher Evaluation Model.

Specific objectives to be accomplished as a part of this study were as follows:

1. To continue studying in a longitudinal manner those subjects who had previously participated in the application of the Model (1979-1980 through 1980-81).

2. To provide a descriptive profile of a sample of 1981 B.S. and M.A. graduates of the teacher education programs of Tennessee Technological University.

3. To determine relationships among selected variables that were measured as a part of the total study.

4. To provide comparisons between the graduates of the teacher education programs of Tennessee Technological University with those who might be considered as effective teachers as defined in the literature of teacher education.

5. To disseminate relevant research data to the faculty and administration of the University.

6. To provide information and suggestions for curriculum evaluation and development based on empirical research data.

7. To continue to evaluate the procedures employed in the study and to make long-range plans for modifications and refinement of the basic Evaluation Model.

Limitations

The general limitations for this study were primarily concerned with sampling techniques:

1. Subjects for the study were individuals who were 1981 graduates of a bachelor's or master's level program at Tennessee Technological University designed to prepare them as teachers, or they were individuals who participated in the study during the period 1979-1980 through 1980-81.

2. Subjects were teaching in the State of Tennessee within a 75-mile radius of Cookeville, Tennessee. (Approximately 65 percent of all graduates of the teacher education programs of the University that were teaching resided within the specified geographical limits of the study.)

3. The subjects volunteered to participate in the study.

4. The subjects who participated in the study received the permission of their principals and superintendents.

5. The sample sizes of the 1979 and 1980 graduates were reduced each year by about 50 percent due to attrition from the teaching profession or moving out of the geographical limits of the study. Therefore, the findings of the study may be limited in their applicability to the population of graduates from the University and also other institutions.

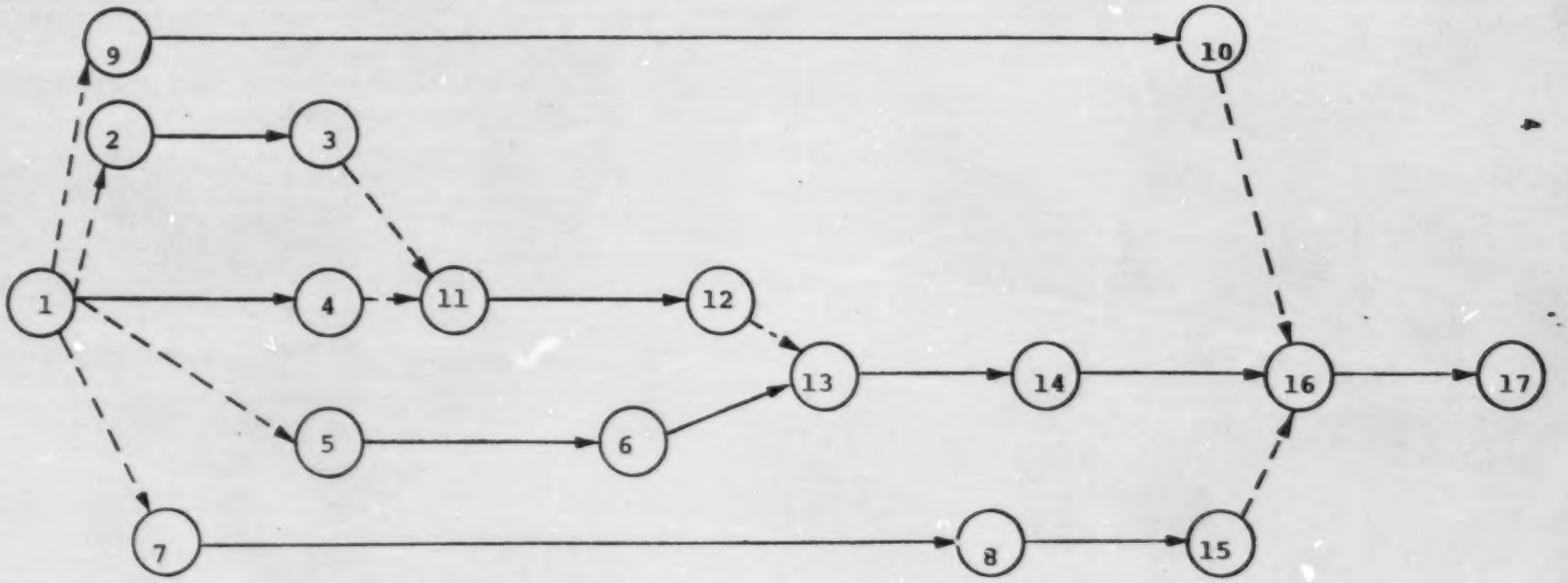
Limitations 1 through 4 above were imposed in order to make the study more feasible regarding the followup of the graduates. Voluntary participation was deemed necessary due to the extensive collection of data and completion of forms. The limitation of a 75-mile radius of Cookeville, Tennessee was necessary because of the limited travel funds available and the time available for the research assistants to visit in the classrooms of the participating subjects.

Procedure

The purpose of this section was to provide the reader with a brief description of the procedures employed in collecting data utilized in this study. This section was concerned specifically with selection of subjects, implementation of the study, training of staff, and methods of data collection and analysis. Figure 1 shows a PERT chart of the major activities of the project from September 1981 through August 1982. In order to conserve space the reader is referred to previous Report 82-1 (5) for a more complete description of such topics as instrumentation and training of observers.

Selection of Subjects

Three groups of subjects participated in the 1981-82 phase of the project. The first group of individuals (1979 graduates) was participating in the project for the third year, while the second group (1980 graduates) was participating for the second year. The third group consisted of those individuals that received either the B.S. or M.A. in 1981. Table 1 shows a summary of the number of individuals (by year of graduation) participating in each phase of the study, and Table 2 shows a summary of the grade level in which the subjects were teaching during 1980-81. Table 3 shows a comparison of sample size, across all years, from which actual usable data were collected.



9/81 1/82 4/82 7/82

Summary of Activities

1-4	Finalize Plans for Visiting Subjects in 1979 and 1980 Phases of Study	11-12	Make School Visits on 1979-80 Graduates
2-3	Training of Observers	6-13	Select Sample of 1981 Graduates for Study as Part of Followup
5-6	Survey All 1981 Graduates	13-14	Make School Visits on 1981 Graduates
7-8	Conduct Related Studies	8-15	Prepare Reports of Related Studies
9-10	Maintain Contact With Other Projects and Survey New Literature	14-16	Complete Report on Main Study
		16-17	Make Plans for Tenth Year of Followup

Figure 1. PERT Chart of Major Activities for 1981-82.

TABLE 1

NUMBER OF SUBJECTS BY YEAR OF GRADUATION PARTICIPATING IN EACH PHASE OF STUDY

Phase of Study	1979	1980	1981	Total
1979-1980	20/41	--	--	20/41*
1980-1981	12/21	40/17	--	52/38
1981-1982	6/7	19/8	35/12	60/27

*No. MA/No. B.S.

TABLE 2

SAMPLE FOR INTENSIVE FOLLOWUP - 1981-1982

Year	K	1-3	4-7	8-12**	SPED	Total
1979	2/1	0/1	0/1	3/3	1/1	6/7*
1980	2/0	3/2	6/2	7/0	1/4	19/8
1981	0/0	11/8	5/3	16/1	3/0	35/12
Total	4/1	14/11	11/6	26/4	5/5	60/27

*No. MA/No. B.S.
**Teaching areas: 1-Business, 3-English, 1-Health and Driver Education, 2-Industrial Arts, 1-Language Arts, 7-Mathematics, 2-Music, 3-Physical Education, 5-Science, 5-Social Science.

TABLE 3

COMPARISON OF SAMPLE SIZES ACROSS ALL YEARS OF STUDY

Year of Graduation	1973	1974	1975	1976	1977	1978	1979	1980	1981
1973	57	35	27	21	15	--	--	--	--
1974	--	48	26	22	14	9	--	--	--
1975	--	--	44	23	17	11	5	--	--
1976	--	--	--	26	16	11	6	--	--
1977	--	--	--	--	50	26	19	10	--
1978	--	--	--	--	--	45	22	12	--
1979	--	--	--	--	--	--	61	33	13
1980	--	--	--	--	--	--	--	57	27
1981	--	--	--	--	--	--	--	--	47
Total	57	83	97	92	112	102	113	112	87

As a part of the routine followup activities of the Office of the Associate Dean, all 1981 graduates of the teacher education programs were contacted in the late fall of 1981 (210 B.S graduates who were eligible for a teaching certificate and 157 M.A. graduates). As a result of this initial survey (6), all graduates who were teaching within the defined geographical limits of the project were contacted by telephone and asked to participate in the study. A total of 12 B.S. and 35 M.A. graduates volunteered to participate (see Tables 1 and 2).

Figure 2 shows a map of selected portions of Tennessee. The numerals within each county indicate the number of individuals who participated in the study during the 1981-82 phase of the study. Table 4 shows a summary of the number of individuals by year of graduation participating from each county.

Instrumentation

Instrumentation for the 1981-82 phase of the study was identical to that used during the past several years of the project. The reader is referred to Report 82-1 (5) for more information with regard to instrumentation.

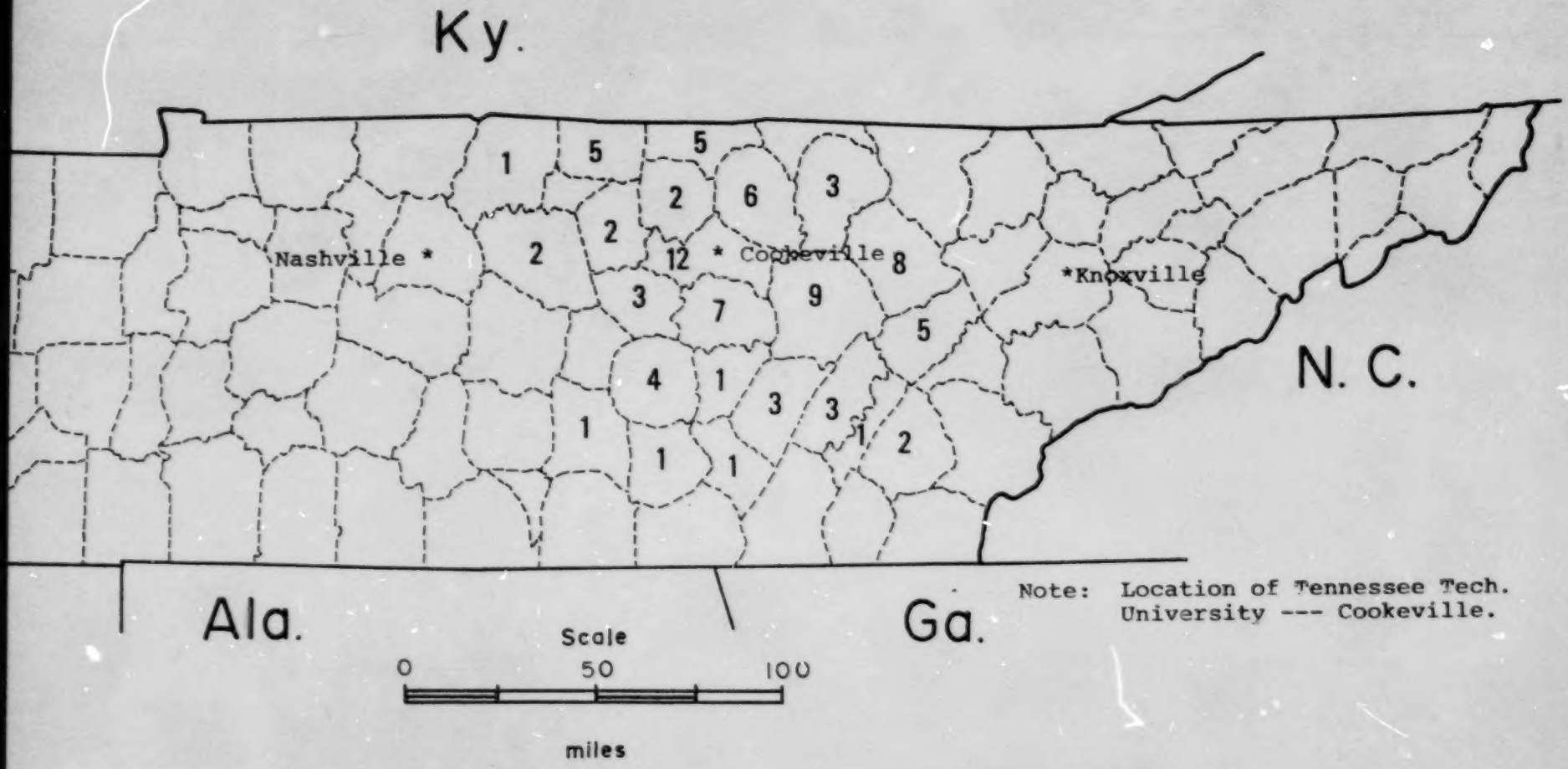


Figure 2. Number of Participants By County in 1981-82 Phase of the Study.

TABLE 4

NUMBER OF SUBJECTS BY DATE OF GRADUATION AND COUNTY IN WHICH TEACHING 1981-1982

County	1979	1980	1981	Total
Bledsoe	1		2	3
Clay	1	2	2	5
Coffee			1	1
Cumberland	1	3	5	9
DeKalb		1	2	3
Fentress	1	1	1	3
Grundy			1	1
Jackson	1	1		2
McMinn			2	2
Macon		2	3	5
Meigs			1	1
Morgan	1	1	6	8
Overton	2	3	1	6
Putnam	3	2	7	12
Rhea		3		3
Roane		2	3	5
Sequatchie			1	1
Smith		1	1	2
Sumner			1	1
Van Buren		1		1
Warren		1	3	4
White	2	1	4	7
Wilson		2		2
Total	13	27	47	87

Training of Observers

The procedures for the training of observers were outlined in detail in Report 82-1 (5).

Collection of Data

Data for this study were collected by mail surveys, interviews, and observations in the classrooms of graduates. Initially, all subjects were contacted by mail and dates were set for observational visits by the graduate research assistants (both previous subjects and new subjects in the study). These dates were verified with the appropriate administrative authorities in each school and school system. A letter explaining the project in detail was sent to all subjects, principals, and superintendents. The subjects, their principals, and superintendents were invited to make comments and suggestions for conducting the study.

Each subject was visited on at least one occasion by the trained graduate assistant. The observer spent approximately a half day in each subject's classroom and completed from two to six 20 minute periods observing, using a ten category system of interaction analysis. At the completion of all observations, the Classroom Observation Record and the Tuckman Teacher Feedback Form were completed.

The appropriate version of the Student Evaluation of Teaching (SET) was administered during the visit. The instrument was completed by at least one class of students. While the students were completing the SET, subjects who were participating in the project for the first year completed the California F-Scale.

During the course of the day, the observer interviewed each graduate with regard to their opinions and ideas about the teacher preparation program of the University. Also, the observers asked each principal to complete the Teacher Evaluation by Superior Form.

Pertinent data such as quality point average, National Teacher Examinations scores, etc., were collected from the permanent records of all 1980 graduates (see Report 82-1 for more details relative to the collection of data).

Analyses of Data

Basic descriptive and inferential statistical methods were used to analyze the data. All data analyses were conducted using the Burroughs 6700 system available in the D. W. Mattson Computer Center on the campus of the University. The Statistical Package for the Social Sciences (7) provided the basic programs for data analyses. The statistical techniques were described in more detail at the appropriate points in this report.

Summary

In summary, this chapter contains a brief overview of the total operation of the 1981-82 phase of the longitudinal study of the graduates of the teacher education programs of Tennessee Technological University. Included in this chapter was a summary statement of the major purposes of the project, limitations of the study, and major procedures employed in conducting the project. Data from the graduates were gathered from four major sources including self or personal, from supervisors and principals, students of the graduates, and by independent observers. Included in the chapter was a listing of the major instruments used in gathering data from the four primary sources. The major purposes and procedures of the project have remained virtually unchanged over the nine years of the study. It was felt the information available from this report, the companion reports completed during the period 1974 through 1981, and Report 82-1 would be useful to those individuals attempting to replicate this study. It should be noted that additional information and specifics related to methodology employed in this study were available from the Office of the Associate Dean of the College of Education.

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CHAPTER II

ANALYSES OF SELECTED DATA ACCUMULATED OVER THE FIRST EIGHT YEARS OF THE APPLICATION OF THE MODEL (1973-1980)

The Tennessee Technological University Teacher Evaluation Model was initiated in the fall of 1973. Through the fall of 1981 data have been collected on eight groups of B.S. graduates and eight groups of M.A. graduates. Graduates have been followed in a longitudinal manner for up to five years. The purpose of this chapter was to present the results of selected analyses of the data for the total group of graduates who have participated in the study. More specific purposes included (1) to present a profile of first year graduates, 1973-1980, (2) to compare first year elementary and secondary graduates by degree level, and (3) to compare a sample of 1979 graduates who were followed for three years. It should be noted that all first year data gathered on 1981 graduates is contained in Chapter III of this document.

Profile of First Year Graduates 1973-80

Through 1980-81, 386 individuals had participated in the followup study for one or more years. There has been a gradual shift by design and through natural selection for a greater number of individuals with the master's degree to volunteer to participate in the study. During the last three years almost one-half of the first year individuals in the study have completed the M.A.

The Analysis of Variance technique was used to determine if there were any differences across years (1973 through 1980) for first year B.S. graduates and first year M.A. graduates. These data are shown in Tables 8 through 23 and will be discussed later in this section. The results indicated few significant differences across the years and were in agreement with other previously reported studies (see Appendix 50 and yearly reports). The data for all first year B.S. graduates teaching in grades 7-12 were combined, and a intercorrelation matrix was computed. The same operations were performed for those B.S. graduates teaching in grades K-6 and those M.A. graduates teaching in grades K-6. Correlations were not computed for those individuals with the M.A. teaching in the secondary grades because of the small sample size. Tables 5, 6, and 7 show the sample size, means, and standard deviations for the variables studied and the intercorrelation matrix for, respectively, the B.S. graduates teaching in grades 7-12, the B.S. graduates teaching in grades K-6, and the M.A. graduates teaching in grades K-6. Discussion of the results of the correlational analyses for the selected variables was included in the following sections.

Personal Variables

Table 8 shows the results of the eight year analyses of Weighted Common Examinations scores from the National Teacher Examinations for the B.S. and M.A. graduates. Tables 9, 10, and 11 show similar data

TABLE 5

CORRELATION MATRIX FOR SELECTED VARIABLES FOR ALL FIRST YEAR B.S. 1973-80 GRADUATES TEACHING IN GRADES 7-12*

	N	X	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
1. Mt. Comm. (MTE)	22	590.3	76.5	1000	439	633	334	-151	-222	-260	-184	-114	158	-145	-179	397	120	-386	359	-141	087	-102	088	189	189	189	134	-176	054	-313
2. ACT Comp.	23	19.7	4.6		1000	500	126	-223	-173	-196	-143	-058	100	264	-172	-341	063	-049	272	-336	029	-137	073	153	153	154	298	046	194	-159
3. GPA	23	3.22	0.42			1000	651	077	037	-144	-204	-200	561	-300	-250	-382	386	085	137	225	133	-136	-186	188	188	188	148	-254	304	-408
4. Maj. GPA	23	3.48	0.36				1000	162	037	038	-077	-062	358	-336	-242	-147	311	045	245	358	025	-017	-711	239	239	239	-189	-405	082	-006
5. Prin. I	21	4.2	0.8					1000	810	650	596	407	135	225	-138	041	-026	067	155	323	274	-034	-227	-338	-334	-334	184	217	418	483
6. Prin. II	21	4.2	0.9						1000	755	704	484	391	543	-053	066	531	489	247	357	115	-125	-111	-045	-045	-046	345	418	548	534
7. Prin. III	21	4.2	0.9							1000	813	281	-006	760	-005	267	604	259	196	344	-268	-143	090	-312	-312	-312	154	340	255	241
8. Prin. IV	21	4.1	0.9								1000	360	012	807	112	-031	083	256	246	171	-324	-092	195	-262	-282	-282	085	121	256	133
9. P-Scale	20	106.7	16.2									1000	390	390	182	-206	519	370	325	-378	391	195	233	097	151	073	288	291	484	482
10. SET-I-1	14	299.4	45.8										1000	054	467	-263	902	727	442	126	077	-350	153	361	354	350	542	041	572	455
11. SET-I-2	14	329.5	34.2											1000	578	319	179	553	354	-122	-459	-284	388	-332	-333	-333	538	387	476	234
12. SET-I-3	14	270.9	36.1												1000	153	566	787	161	-214	-342	-267	550	-135	-134	-136	446	079	325	325
13. SET-I-4	14	286.9	51.1													1000	-283	290	-162	297	-234	-324	-182	-247	-247	-248	356	582	477	461
14. SET I-5	14	237.7	54.8														1000	783	584	183	-829	-110	275	453	453	455	525	171	488	429
15. SET-I-Tot	14	286.1	25.5															1000	382	099	-264	-402	315	084	084	083	680	356	585	559
16. I/D	22	0.76	0.98																1000	025	-227	-285	431	282	179	215	223	026	329	064
17. I/d	22	0.36	0.25																	1000	-095	017	-438	389	298	181	086	254	-018	268
18. ST/TT	22	1.00	1.03																		1000	296	-445	154	285	251	629	231	135	222
19. S11/Tot	22	0.54	0.47																			1000	-258	-145	-112	-212	-289	073	-264	-139
20. Loc/Tot	22	0.47	0.26																				1000	-488	-457	-386	-234	-328	-175	-463
21. COR-I	23	42.6	3.2																					1000	588	888	886	577	851	752
22. COR-II	23	62.6	9.6																						1000	788	856	628	786	861
23. COR-III	23	22.2	3.6																							1000	842	523	785	689
24. TUCK-I	20	29.5	6.5																								1000	587	826	797
25. TUCK-II	20	29.3	7.4																									1000	548	644
26. TUCK-III	20	31.9	6.6																										1000	723
27. TUCK-IV	20	34.7	7.5																											1000

*Underline indicates a correlation significant at or beyond the .05 level. Decimal points on all correlations have been omitted.

TABLE 6

CORRELATION MATRIX FOR SELECTED VARIABLES FOR ALL FIRST YEAR B.S. 1973-80 GRADUATES TEACHING IN GRADES K-6*

	N	Y	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
1. Wt. Comm. (HTE)	200	560.0	71.7	1000	.702	.372	.218	.076	-.014	.077	.047	-.161	.173	.071	-.043	-.000	-.060	-.013	.118	.046	.063	.088	.115	.087	.064	.030	.047	.004	.074	.226	.007	-.042	.005	-.000	.000
2. ACT Comp.	164	18.2	4.6		1000	.480	.418	.126	.029	.002	.078	-.160	-.121	.063	-.105	-.188	-.148	-.062	.196	.105	.104	.004	.115	.025	.026	.043	.050	.035	.053	.144	.077	.058	.100	-.000	.000
3. GPA	223	3.02	0.63			1000	.673	.170	.142	-.024	.101	-.105	.122	.013	-.105	-.004	.031	.020	.033	-.031	.005	-.007	.022	-.102	-.102	-.006	-.002	-.054	-.042	.145	-.120	.130	.002	.139	.130
4. Maj. GPA	190	3.20	0.80				1000	.071	-.024	.006	.046	-.129	.065	-.122	-.004	-.062	-.006	-.064	.017	-.018	.014	.005	.006	-.040	-.040	-.040	.006	-.052	-.004	.006	-.000	.002	.043	.005	-.006
5. PRIN. I	187	4.2	0.7					1000	.568	.577	.633	-.232	.208	.130	.346	.212	.139	.159	.018	-.029	-.002	-.027	-.013	.154	.250	.135	-.132	.109	-.007	-.012	-.117	.002	-.000	.000	.004
6. PRIN. II	187	4.4	0.8						1000	.443	.620	-.078	.237	.241	.280	.115	.227	.230	-.024	-.033	-.025	-.044	-.030	.004	.060	.040	.040	.062	.025	-.005	-.041	.027	.153	-.000	.000	.021
7. PRIN. III	184	4.2	0.8							1000	.561	-.246	-.063	.245	.104	.283	.100	.219	-.050	-.046	-.025	-.029	-.031	.132	.129	.134	.200	.009	.105	-.025	.075	.002	-.005	.017	-.000
8. PRIN. IV	193	4.2	0.8								1000	-.150	.164	.535	.541	.303	.120	.317	-.014	-.054	-.008	.013	-.019	.046	.040	.025	.215	-.025	.004	.001	.004	.013	-.140	-.005	-.000
9. P-Scale	199	104.9	30.3									1000	-.202	.018	-.101	.045	-.010	-.151	.051	.024	.206	.000	.000	.143	.143	.148	.100	.006	.046	-.166	.004	-.100	-.125	-.125	-.247
10. SET-I-1	117	340.0	43.4										1000	.566	.658	.005	.457	.732	.130	.140	-.051	-.120	-.005	-.010	-.011	-.006	--	--	--	--	--	.041	.170	.001	.305
11. SET-I-2	117	336.4	36.8											1000	.475	.293	.100	.451	.101	.000	.013	-.071	-.010	-.058	-.062	-.002	--	--	--	--	--	.153	.050	.013	.135
12. SET-I-3	117	290.2	51.2												1000	.077	.497	.762	-.056	.100	.022	.114	-.070	.155	.167	.160	--	--	--	--	--	.000	-.030	-.030	.222
13. SET-I-4	117	301.2	44.0													1000	-.013	.300	-.136	.004	.020	.100	.130	-.110	-.123	-.001	--	--	--	--	--	-.000	-.157	-.025	-.100
14. SET-I-5	117	253.0	51.6														1000	.621	.024	.101	.044	.132	-.042	.172	.175	.106	--	--	--	--	--	.167	-.015	-.029	.347
15. SET-I-Tot	117	307.0	31.0															1000	.711	.011	.045	-.140	.106	.074	.002	--	--	--	--	--	.134	.004	.002	.244
16. I/D	203	2.21	0.65																1000	.791	.530	.748	.048	-.004	-.044	-.005	-.040	-.030	.213	.050	-.000	.170	.200	.150	.131
17. I/A	203	1.16	0.37																	1000	.032	.706	.047	.015	.049	.035	-.022	-.002	-.005	.001	.004	.100	.150	.112	.244
18. ST/YT	203	0.88	0.07																		1000	.900	.105	.005	.007	.013	-.027	-.024	-.004	.014	-.015	.147	.100	.000	.013
19. Sti/Tot	203	0.63	0.22																			1000	.930	.127	.147	.105	.000	-.000	.015	.030	.000	.023	.004	.005	.044
20. Loc/Tot	203	0.57	0.21																				1000	-.004	-.015	-.004	-.009	-.013	-.017	.051	-.007	-.004	.000	.000	.027
21. CRR-I	220	40.2	3.6																					1000	.007	.004	.047	.005	.000	.000	.000	.262	.007	.760	.645
22. CRR-II	220	67.9	7.0																						1000	.000	-.000	-.004	-.004	-.000	-.000	.047	.167	.000	.770
23. CRR-III	220	20.8	4.1																							1000	-.000	-.000	-.004	-.004	-.000	.000	.000	.000	.000
24. SET-II-1	76	5.56	1.31																								1000	.234	.700	.113	.130	.000	-.000	-.250	-.077
25. SET-II-2	76	4.85	1.56																									1000	.750	.045	.267	.300	.522	.167	.200
26. SET-II-3	76	10.30	2.01																										1000	.250	.794	.000	-.100	-.150	.005
27. SET-II-4	76	8.30	1.50																											1000	.000	-.044	.052	.044	.527
28. SET-II-5	75	6.76	1.22																												1000	.125	.000	.000	.000
29. TUCS-I	100	27.1	6.0																													1000	.525	.000	.560
30. TUCS-II	100	28.3	7.0																														1000	.500	.750
31. TUCS-III	100	33.5	5.5																															1000	.410
32. TUCS-IV	100	35.2	5.9																																1000

*Underline indicates a correlation significant at or beyond the .05 level. Decimal points on all correlations have been omitted.

TABLE 7

CORRELATION MATRIX FOR SELECTED VARIABLES FOR ALL FIRST YEAR M.A. 1973-80 GRADUATES TEACHING IN GRADES K-6*

	N	M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
1. Wr. Comp. (PPE)	61	564.1	81.6	1000	.748	.376	-.082	-.060	.144	-.045	.037	.185	.182	.119	-.155	-.047	.055	.217	.144	.154	-.113	-.106	-.039	-.060	-.088	-.067	.204	.154	.060	-.122	-.060	-.226	.000	-.004
3. ACT Comp.	64	18.5	4.7		1000	.371	.050	-.057	.100	-.055	.129	.027	.105	-.140	.061	-.171	.004	.282	.093	.085	-.139	.047	.070	.060	.070	-.007	-.008	-.062	.187	-.277	-.108	-.300	-.105	-.230
3. GPA	134	3.70	0.29			1000	.117	.000	.013	.115	.076	.045	.034	-.057	.000	-.055	.082	.016	.140	.110	-.064	-.001	-.072	-.073	-.073	-.007	.203	.130	.109	.133	.007	-.070	.106	-.005
4. PRIN. I	111	4.4	0.7				1000	.320	.200	.229	.055	.167	.148	.064	-.118	.156	.157	-.007	.256	-.130	-.137	-.133	-.000	-.000	-.007	-.015	.130	.055	-.005	.042	.041	.000	.226	.203
5. PRIN. II	112	4.4	0.7					1000	.091	.005	.053	.214	.106	.200	-.141	.207	.135	-.026	.140	-.050	-.125	.176	-.023	.023	-.023	-.212	-.005	.077	.170	-.130	-.095	-.100	-.070	-.017
6. PRIN. III	111	4.4	0.6						1000	.011	-.005	.131	.107	.079	-.150	.190	.102	.152	.070	.015	-.120	-.039	.106	.105	.107	-.007	-.230	.141	-.052	-.040	.000	.000	.066	.020
7. PRIN. IV	100	4.4	0.6							1000	.064	.202	.243	.112	-.001	.101	.203	-.025	.131	-.062	-.141	-.075	.077	.077	.077	-.132	.003	.150	.021	.000	.000	.057	.005	.130
8. F-Scale	114	106.5	48.8								1000	-.125	-.167	.150	.044	-.104	-.095	.001	.079	.005	.065	-.000	.010	.010	.010	-.030	-.006	-.051	.062	-.007	.004	.007	-.000	.030
9. SET-I-1	77	327.0	54.0									1000	.720	.290	.303	.512	.006	-.031	.137	.062	-.146	-.048	-.072	.032	.032	--	--	--	--	--	.031	.140	.230	.209
10. SET-I-2	77	330.7	50.6										1000	.095	.460	.604	.064	-.104	.026	.134	-.147	.048	.010	.010	.010	--	--	--	--	--	.056	.208	.252	.232
11. SET-I-3	77	280.4	50.9											1000	-.174	.327	.296	.122	.260	.029	-.072	-.144	-.137	-.137	-.137	--	--	--	--	--	.270	.000	.230	.213
12. SET-I-4	77	297.1	48.7												1000	.252	.573	-.109	.015	.070	.130	-.010	-.001	-.000	-.005	--	--	--	--	--	-.250	.005	-.004	.046
13. SET-I-5	77	290.2	53.1													1000	.632	.110	.195	.017	.030	-.051	-.100	-.099	-.000	--	--	--	--	--	.000	.107	.130	.000
14. SET-I-Tot	77	297.2	46.7														1000	-.255	.150	.093	-.039	-.054	-.048	-.047	-.040	--	--	--	--	--	.000	.105	.109	.307
15. I/D	110	2.15	1.02															1000	.033	-.101	-.027	.157	.019	.000	.000	-.075	-.150	-.022	-.002	-.145	.012	.130	.046	-.044
16. i/d	110	0.62	0.55																1000	.001	-.012	-.053	-.042	-.042	-.042	-.014	.070	-.030	-.005	-.050	.000	.002	.004	.046
17. ST/YT	110	0.61	0.49																	1000	.154	-.119	-.057	-.055	-.056	-.294	-.110	-.001	.520	.306	-.090	-.126	-.000	-.002
18. SII/Tot	110	0.66	0.52																		1000	-.107	-.035	-.033	-.036	.005	-.070	-.007	.000	.000	-.041	-.071	-.171	-.050
19. Loc/Tot	110	0.45	0.21																			1000	.104	.104	.104	-.340	-.155	.007	.137	.107	-.170	.076	-.106	-.297
20. CSR-I	124	42.1	4.2																				1000	.006	.004	-.719	-.000	-.100	-.073	-.000	.000	.000	.000	.000
21. CSR-II	124	60.4	7.0																					1000	.026	-.719	-.000	-.100	-.031	-.700	.702	.206	.700	.707
22. CSR-III	124	22.1	3.2																						1000	-.707	-.000	-.100	-.031	-.001	.053	.200	.000	.000
23. SET-II-1	40	5.44	0.73																							1000	.000	.200	.200	.705	-.226	.110	-.054	-.342
24. SET-II-2	40	4.45	0.84																								1000	.100	.107	.005	-.029	.100	.226	.705
25. SET-II-3	40	9.07	1.60																									1000	.000	.250	-.220	.170	-.117	-.052
26. SET-II-4	40	8.58	1.98																										1000	.700	.007	.157	.000	.105
27. SET-II-5	40	6.79	1.27																											1000	-.105	-.000	-.253	-.200
28. TUCK-I	92	28.7	6.7																												1000	.520	.007	.005
29. TUCK-II	92	30.9	5.9																													1000	.413	.371
30. TUCK-III	92	34.8	4.4																														1000	.040
31. TUCK-IV	92	35.2	4.7																															1000

*Underline indicates a correlation significant at or beyond the .05 level. Decimal points on all correlations have been omitted.

TABLE 8

COMPARISON OF MEAN WEIGHTED COMMONS SCORES (NTE) FOR FIRST YEAR B.S. AND M.A. GRADUATES 1973-80

Years	B.S.			M.A.		
	N	$\bar{X}$	SD	N	$\bar{X}$	SD
1973	17	557.6	63.4	--	--	--
1974	26	567.6	84.2	3	574.3	67.2
1975	30	563.9	80.2	12	588.2	72.4
1976	21	586.9	54.1	5	621.2	42.7
1977	29	575.7	65.6	11	563.1	91.6
1978	25	581.9	64.7	5	490.6	59.8
1979	38	573.9	71.9	9	522.4	71.8
1980	14	565.5	91.8	16	567.8	85.3
All Years	200	572.3	71.8	62	562.7	79.8
F-Ratio		0.39			1.59	

TABLE 9

COMPARISON OF MEAN ACT COMPOSITE SCORES FOR FIRST YEAR B.S. AND M.A. GRADUATES 1973-80

Years	B.S.			M.A.		
	N	$\bar{X}$	SD	N	$\bar{X}$	SD
1973	10	16.7	6.4	--	--	--
1974	26	17.8	3.7	3	18.6	1.2
1975	24	18.5	4.4	10	20.3	5.4
1976	19	18.9	3.6	5	22.2	1.3
1977	24	19.6	5.3	10	18.8	4.4
1978	21	19.3	6.3	7	14.9	2.9
1979	31	18.5	4.6	13	16.9	4.6
1980	11	16.0	4.2	18	18.7	5.3
All Years	166	18.4	4.1	67	18.4	4.7
F-Ratio		0.99			1.64	

TABLE 10

COMPARISON OF MEAN QPA FOR FIRST YEAR
B.S. AND M.A. GRADUATES 1973-80

Years	B.S.			M.A.		
	N	$\bar{X}$	SD	N	$\bar{X}$	SD
1973	18	2.91	0.46	--	--	--
1974	31	2.90	0.68	13	3.61	0.24
1975	31	3.04	0.40	12	3.74	0.36
1976	21	3.02	0.44	5	3.65	0.28
1977	30	3.16	0.40	20	3.76	0.25
1978	27	3.06	0.83	20	3.74	0.24
1979	40	3.19	0.52	18	3.69	0.31
1980	16	3.32	1.11	40	3.76	0.19
All Years	214	3.08	0.62	127	3.71	0.26
F-Ratio		1.19			0.68	

TABLE 11

COMPARISON OF MEAN F-SCALE SCORES FOR FIRST YEAR B.S. AND M.A. GRADUATES 1973-80

Years	B.S.			M.A.		
	N	$\bar{x}$	SD	N	$\bar{x}$	SD
1973	13	107.2	34.9	3	91.3	36.1
1974	28	101.4	20.3	12	109.7	16.0
1975	31	101.9	24.2	11	90.3	15.8
1976	16	98.9	17.0	4	89.5	8.2
1977	27	100.9	23.2	19	104.1	25.4
1978	26	102.1	20.3	16	105.7	19.8
1979	38	107.6	17.6	16	107.6	20.3
1980	15	111.5	16.4	38	95.2	23.6
All Years	194	103.7	21.6	119	105.8	17.4
F-Ratio		0.78			0.87	

for the American College Test Composite Scores, Overall Quality Point Averages, and scores from the California F-Scale Forms 45 and 40.

An examination of the results of the administration of the Weighted Common Examinations (Table 8) indicated no significant differences across time for the B.S. and M.A. graduates. All graduates had completed the NTE while seniors in college. Mean scores for the group indicated they had scored at the 50th percentile when compared with national samples. The B.S. group had achieved a mean score approximately 10 points higher than the M.A. group. Use of the t-test indicated no significant difference ($t=0.85$, $df=260$, n.s.) between the B.S. and M.A. groups. An examination of the correlation of the NTE with other variables indicated, as would be expected, highly significant correlations with ACT composite scores and overall Quality Point Averages for all three groups of subjects (B.S., K-6; B.S., 7-12; and M.A., K-6). A significant positive correlation was noted between the NTE and the SET-I variable of Firm Control for the B.S. secondary group. Positive correlations were noted between the NTE and the SET-I variable of Friendly and Cheerful and the SET-II variable of Unreasonable Negativity and a negative significant correlation between the NTE and the F-Scale for the B.S. elementary group. No explanation can be offered for any of the later correlations.

The mean ACT composite scores for the groups are shown in Table 9. All individuals had completed the ACT as seniors in high school. There were no significant differences across the eight years of the study. Application of the t-test indicated no significant difference in mean ACT scores ($t=0.00$, $df=231$, n.s.). There were significant positive correlations between ACT scores and overall Quality Point Averages for all three groups. In addition a positive correlation was noted between ACT scores and the Indirect/Direct ratio from the Flanders for the B.S. elementary group. Significant negative correlations, for the B.S. elementary group, were noted between ACT scores and scores from the F-Scale, the SET-I variable of Friendly and Cheerful. Significant negative correlations were noted between the ACT scores and the SET-II variable Rapport and the Tuckman variable of Dynamism. Again, no explanation can be offered for these correlations.

Table 10 shows a comparison of the overall Quality Point Averages achieved by the two groups. The overall QPA for the M.A. graduates was based only on the work completed for the last degree. There were no significant differences across years. Since the two groups were at different collegiate levels, no comparison could be made between mean QPA's for the eight years. A significant positive correlation was noted between the overall QPA and the Friendly and Cheerful factor of the SET-I. Significant positive correlations were noted between overall QPA and the Subject Matter Competence and Relations with Students factors from the principal's evaluations of B.S. elementary graduates. A positive correlation was noted between QPA and the Interactional Competence factor of the SET-II for the M.A. graduates. No explanation can be offered for these correlational patterns.

An examination of the relationship across time of the Major Field QPA for the B.S. graduates indicated no significant differences in years.

The mean Major Field QPA was 3.34 (SD=0.78). The table has been omitted from this report.

Table 11 shows the mean F-Scale scores for the B.S. and M.A. subjects across eight years. There were no significant differences across time. There was no significant difference in overall mean score between the two groups (t=0.94, df=311, n.s.). The mean scores for both groups indicated as a whole they tend to be non-authoritarian in their beliefs. Significant positive correlations were noted for the B.S. secondary group between F-Scale scores and Subject Matter Competence and Relations with Students ratings by principals, the Non-Directive Factor of the SET-I and the Organized Demeanor and Warmth and Acceptance factors from the Tuckman. It appeared that secondary teachers who were more authoritarian in their beliefs may have better relations with their students. There was a significant negative relationship between the F-Scale and the Indirect/Direct ratio from the Flanders for this group. It appeared that more authoritarian individuals tended to use less indirect teaching methods in the classroom.

An examination of the correlation pattern for the B.S. elementary group indicated significant negative correlations between F-Scale scores and Subject Matter Competence, Appropriateness of Assignments, and Overall Effectiveness from the Principal's Rating Scale. Also, negative significant correlations were noted between the F-Scale scores and the Friendly and Cheerful and Lively and Interesting factors of the SET-I. This tended to indicate that the teachers who were less authoritarian in their beliefs were perceived as better teachers by both principals and students. On the contrary side, there were significant positive correlations between F-Scale scores and the scores derived from the three factors of the Classroom Observation Record. Thus, independent observers perceived the graduates in a different light than the principals and students.

Principals' Ratings

Table 12 shows a summary of the ratings given by principals to the B.S. graduates during their first year in the study. Table 13 shows similar information for the M.A. graduates. There were no significant differences across time for the four variables studied for both groups. In general, the M.A. graduates were rated slightly higher than the B.S. graduates (usually on the order of 0.1 to 0.2 on a scale of 1 to 5). As would be expected, there were high positive intercorrelations for all four variables for the three groups studied.

Significant positive correlations were noted between the Relations with Students, Appropriateness of Assignments, and Overall Effectiveness ratings by principals and the Knowledgable and Poised factor from the SET-I for B.S. secondary graduates. Significant positive correlations were also noted between the first two principals' factors and the Dynamism, Organized Demeanor, and Warmth and Acceptance factors from the Tuckman. Thus, principals and independent observers agreed on the ratings of the graduates.

An examination of the relationships between principals' ratings and the variables under study for the B.S. elementary group revealed significant

TABLE 12

COMPARISON OF PRINCIPAL'S RATINGS FOR FIRST YEAR B.S. GRADUATES 1973-80

Years (N)	Subject Matter Competence		Relations With Students		Appropriate-ness of Assignments		Overall Effective-ness	
	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD
1973 (N=15)	4.1	0.8	3.9	0.9	3.9	0.9	4.0	0.9
1974 (N=28)	4.0	0.8	4.1	1.0	4.2	1.0	4.1	1.0
1975 (N=27)	4.2	0.7	4.5	0.6	4.3	0.8	4.2	0.7
1976 (N=20)	4.3	0.7	4.5	0.6	4.4	0.7	4.3	0.7
1977 (N=27)	4.2	0.7	4.4	0.6	4.2	0.6	4.0	0.6
1978 (N=17)	4.4	0.7	4.4	0.8	4.2	1.0	4.0	1.3
1979 (N=41)	4.3	0.7	4.3	0.9	4.2	0.8	4.2	0.7
1980 (N=16)	4.3	0.8	4.5	0.7	4.4	0.5	4.1	0.8
F-Ratio	0.56		1.33		0.44		0.98	

TABLE 13

COMPARISON OF PRINCIPALS' RATINGS FOR FIRST YEAR M.A. GRADUATES 1973-80

Years (N)	Subject Matter Competence		Relations With Students		Appropriate-ness of Assignments		Overall Effective-ness	
	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD
1973 (N=3)	4.7	0.6	4.6	0.6	5.0	---	4.7	0.6
1974 (N=11)	4.1	0.7	4.1	0.7	4.3	0.6	4.2	0.8
1975 (N=9)	4.1	0.9	4.1	0.8	4.1	0.8	4.3	0.8
1976 (N=3)	4.3	0.6	3.7	5.8	4.7	0.6	4.7	0.6
1977 (N=19)	4.8	0.4	4.6	0.5	4.5	0.6	4.6	0.6
1978 (N=18)	4.6	0.7	4.6	0.9	4.3	0.8	4.6	0.9
1979 (N=18)	4.4	0.6	4.7	0.5	4.4	0.6	4.5	0.6
1980 (N=40)	4.3	0.7	4.5	0.7	4.2	0.6	4.3	0.5
F-Ratio	1.94		2.25*		1.26		0.77	

positive correlations with variables from the SET-I and the COR. This indicated that principals and independent observers and students perceived the graduates in the same manner.

In general, significant positive correlations for the M.A. group were noted between the principals' factors and certain variables from the SET-I and the Tuckman. Again, this indicated that principals, independent observers, and students perceived the graduates in the same manner.

Student Evaluation of Teaching

Two instruments were used by the students to evaluate the graduates. The Student Evaluation of Teaching (SET-I) was used by students in grades 4-12 to evaluate their teachers. The Student Evaluation of Teacher (SET-II) was used by students in grades K-3 to evaluate their teacher. It should be noted that the SET-II was not introduced into the study until 1974.

SET-I. Tables 14 and 15 show, respectively, the results of administering the SET-I in the classrooms of the B.S. and M.A. graduates. There were no significant differences across time for each of the six variables of the SET-I for the B.S. graduates. However, it was noted that there has been a general decline in ratings given by the students to first year B.S. graduates. (Table 14) An examination of the results from the M.A. graduates (Table 15) revealed a similar pattern. In general B.S. graduates have been rated somewhat higher than M.A. graduates on all factors.

High intercorrelations were noted between the six factors for all three groups. Significant positive correlations were noted between several of the SET-I variables and Tuckman ratings for the B.S. secondary group. Also positive correlations were noted between several of the SET-I variables and factors from the COR for the B.S. elementary group and the M.A. group. This indicated, once again, that there was some positive relationship between students' and independent observers perceptions of the graduates.

SET-II. Tables 16 and 17 show, respectively, the results of the use of the SET-II with the B.S. and M.A. graduates. In general ratings for both groups have increased, though not significantly, across the seven years that the instrument has been used. In general, M.A. graduates may have been rated slightly higher than the B.S. graduates. Significant negative correlations were noted between all of the factors of the SET-II and factors from the COR for both the B.S. and M.A. groups. No explanation can be offered for this phenomena. Significant positive correlations were noted between the various factors of the SET-II.

Independent Observers

Three instruments were employed by independent observers to gather evaluative information. These three instruments included the Ten Category Flanders Interaction Analysis, the Classroom Observation Record, and the Tuckman Teacher Feedback Form.

TABLE 14

COMPARISON OF SET-I SCORES FOR FIRST YEAR B.S. GRADUATES 1973-80

Years (N)	Friendly and Cheerful		Knowledgeable and Poised		Lively and Interesting		Firm Control (Discipline)		Non-Directive (Democratic Process)		Composite Score	
	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD
1973 (N=5)	364.4	24.8	348.2	30.8	333.6	33.4	302.4	58.5	260.6	62.2	327.8	16.1
1974 (N=9)	313.4	57.3	327.7	43.7	313.0	38.6	310.1	38.9	246.3	47.7	301.9	19.6
1975 (N=19)	347.6	32.8	347.3	24.3	303.5	38.7	304.8	38.5	247.5	48.6	310.1	25.7
1976 (N=11)	348.3	34.9	328.3	38.1	296.6	37.2	289.1	30.2	277.2	41.0	307.8	21.9
1977 (N=18)	333.8	43.5	325.2	34.4	288.1	24.6	285.6	51.9	249.1	52.8	301.8	33.7
1978 (N=14)	336.4	39.3	331.6	42.6	288.9	52.8	283.2	49.4	250.4	57.0	294.3	40.0
1979 (N=24)	323.7	49.1	335.7	31.8	287.3	56.8	301.0	47.7	239.8	61.7	297.5	36.2
1980 (N=11)	329.0	59.3	327.1	45.7	293.9	68.7	318.3	57.4	256.3	60.2	304.9	39.7
F-Ratio	1.23		0.80		0.95		0.90		0.57		0.85	

TABLE 15

COMPARISON OF SET-I SCORES FOR FIRST YEAR M.A. GRADUATES 1973-80

Years (N)	Friendly and Cheerful		Knowledgeable and Poised		Lively and Interesting		Firm Control (Discipline)		Non-Directive (Democratic Process)		Composite Score	
	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD
1973 (N=2)	363.0	19.8	377.0	26.9	347.5	41.7	324.5	19.1	238.5	48.8	326.0	5.7
1974 (N=10)	295.2	73.9	320.8	44.9	253.4	56.2	295.2	52.4	236.6	38.3	268.8	39.1
1975 (N=6)	317.7	50.1	348.3	28.2	269.7	75.1	302.0	30.0	249.5	74.6	297.3	38.1
1976 (N=4)	335.0	24.9	341.5	28.1	280.5	41.6	308.3	10.7	264.5	40.6	305.8	16.7
1977 (N=12)	336.0	46.2	350.8	23.3	301.7	56.8	304.5	28.6	262.7	68.8	311.1	38.0
1978 (N=11)	331.7	33.9	357.0	16.1	284.8	43.0	296.9	21.5	250.2	41.0	304.3	23.0
1979 (N=6)	348.0	29.7	350.3	14.0	307.2	40.8	316.0	45.0	252.8	49.6	315.0	25.5
1980 (N=26)	324.0	65.5	320.5	73.3	287.7	50.1	289.6	68.0	243.5	52.6	288.5	64.4
F-Ratio	0.82		1.25		1.34		0.36		0.30		1.10	

TABLE 16

COMPARISON OF SET-II SCORES FOR FIRST YEAR B.S. GRADUATES 1974-80

Years (N)	Rapport		Interac-tional Competence		Stimulating Interaction Style		Unreasonable Negativity		Fosterance of Self-Esteem	
	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD
1974 (N=20)	5.1	1.7	5.4	2.8	9.5	2.5	8.1	2.1	6.5	1.8
1975 (N=12)	5.8	0.8	4.5	0.4	10.3	1.0	8.7	1.0	6.6	0.8
1976 (N=9)	5.6	0.4	4.5	0.4	10.1	0.7	8.9	0.6	6.7	0.5
1977 (N=10)	5.5	0.6	4.7	0.8	9.4	2.8	8.2	1.8	6.8	0.8
1978 (N=13)	5.8	2.1	4.9	1.0	0.9	2.3	8.1	1.6	7.3	1.5
1979 (N=15)	5.6	0.4	4.5	0.3	10.1	0.6	8.6	0.7	6.7	0.5
1980 (N=4)	6.1	0.9	4.9	0.6	11.0	0.7	9.0	0.8	6.8	1.3
F-Ratio	0.64		0.73		1.07		0.68		0.72	

TABLE 17

COMPARISON OF SET-II SCORES FOR FIRST YEAR M.A. GRADUATES 1974-80*

Years (N)	Rapport		Interac-tional Competence		Stimulating Interaction Style		Unreasonable Negativity		Fosterance of Self-Esteem	
	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD
1974 (N=4)	5.1	2.2	3.9	1.9	9.0	2.0	5.4	3.5	5.6	3.6
1975 (N=5)	5.6	0.2	4.6	0.4	10.3	0.4	8.8	0.6	7.0	0.4
1977 (N=6)	6.2	1.5	4.9	1.0	11.1	2.5	8.3	0.8	7.5	1.4
1978 (N=6)	5.5	0.5	4.9	0.9	10.4	1.4	8.4	1.0	7.2	0.8
1979 (N=12)	5.1	1.5	4.0	1.3	9.1	0.9	8.9	0.7	7.0	0.6
1980 (N=12)	5.4	0.5	4.5	0.7	9.8	1.0	8.2	1.5	6.7	0.5
F-Ratio	0.88		1.07		1.61		1.63		1.38	

Flanders Interaction Analysis. The mean values of five ratios derived from the use of Flanders Interaction Analysis are shown in Tables 18 and 19. In general, across time, the indirect to direct ratios for the B.S. group have decreased (Table 18) while the silence to total teaching ratios have increased. The ratios for the M.A. group (Table 19) have remained nearly constant across time. There were no significant differences across time for the five ratios and for the two groups. An examination of the correlation patterns for the variables for the three groups indicated some positive relationships between the indirect to direct teaching ratios and the variables derived from the Tuckman.

Classroom Observation Record. Mean scores derived from use of the COR are shown in Tables 20 and 21. There were no significant differences across time for both the B.S. and M.A. groups for each of the three factors. In general, mean scores have decreased across time. The correlational pattern for COR scores and the Tuckman factors revealed significant positive correlations for all three groups for all of the variables. Thus there was consistency in observation using the two instruments.

Tuckman Teacher Feedback Form. Tables 22 and 23 show, respectively, the results of the use of the Tuckman with the B.S. and M.A. graduates. It should be noted that the instrument was first introduced into the study in 1976. In general, there has been a tendency for ratings on all four factors for both groups to increase over time, though not significantly. In general, M.A. graduates appeared to be rated slightly higher than B.S. graduates.

Summary

In summary this section has presented a comparison study of mean scores for selected variables over an eight year period. Both first year B.S. and M.A. graduates appeared similar in their first year of teaching after receiving their degree. It should be noted that the M.A. graduates had completed a mean of 5.5 years of teaching prior to entering the study, whereas the B.S. graduates were in their first full year of teaching. The correlational pattern of years of experience with the variables under study revealed a significant positive relationship with the Lecture/Total Teaching ratio from the Flanders and a significant negative relationship with the Indirect/Direct ratio. Although the trends were not significant, in general scores and ratings have decreased over the eight year period. In many cases B.S. graduates were rated slightly higher than M.A. graduates. The results of the use of correlational analyses indicated that the principals, students, and independent observers were in agreement over the ratings that had been given the graduates.

It appeared the graduates were functioning at a level that was comparable to national samples. The trends that were beginning to develop in the data need to be followed. At the present time, it appeared that the teaching profession may be attracting students with lesser ability. In turn this may begin to be reflected in classroom evaluations after entering the profession. In order to change this trend there is a need for improving the quality of the student who completes the baccalaureate degree program and certification for teaching.

TABLE 18

COMPARISON OF FLANDERS RATIOS FOR FIRST YEAR B.S. GRADUATES 1973-80

Years (N)	I/D		i/d		ST/TT		Sil/Tot		Lec/Tot	
	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD
1973 (N=13)	1.84	2.70	0.88	0.90	0.77	0.77	0.35	0.24	0.43	0.23
1974 (N=30)	1.35	1.98	0.66	0.46	0.79	1.19	0.51	0.78	0.40	0.18
1975 (N=28)	3.18	3.25	0.75	0.46	0.52	0.20	0.39	0.35	0.51	0.14
1976 (N=14)	2.93	2.59	0.93	0.68	0.75	0.52	0.32	0.32	0.43	0.25
1977 (N=30)	3.06	6.46	1.41	1.51	0.78	1.07	0.32	0.28	0.28	0.21
1978 (N=26)	1.82	1.55	0.82	0.80	0.84	0.88	0.54	0.58	0.32	0.38
1979 (N=42)	1.20	1.90	0.48	0.31	0.83	0.92	0.75	0.75	0.52	0.16
1980 (N=16)	0.89	0.56	0.71	0.44	0.90	0.99	0.94	1.53	0.33	0.15
F-Ratio	0.93		1.33		0.83		0.97		1.05	

TABLE 19

COMPARISON OF FLANDERS RATIOS FOR FIRST YEAR M.A. GRADUATES 1973-80

Years (N)	I/D		i/d		ST/TT		Sil/Tot		Lec/Tot	
	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD
1973 (N=2)	1.99	----	0.78	----	0.46	----	0.15	----	0.30	----
1974 (N=12)	0.89	1.01	0.43	0.30	0.43	0.20	0.79	1.34	0.53	0.20
1975 (N=11)	1.59	1.37	0.47	0.26	0.49	0.38	0.39	0.33	0.58	0.18
1976 (N=4)	3.95	4.36	0.63	0.72	0.46	0.41	0.14	0.10	0.49	0.20
1977 (N=19)	1.84	2.66	0.88	0.55	0.77	0.80	0.36	0.21	0.33	0.23
1978 (N=17)	1.83	1.95	0.70	1.10	0.56	0.34	0.29	0.23	0.56	0.23
1979 (N=18)	1.12	0.97	0.55	0.34	0.65	0.38	0.83	0.72	0.51	0.18
1980 (N=40)	1.03	1.35	0.59	0.36	0.71	0.67	0.82	0.42	0.39	0.16
F-Ratio	1.66		1.52		0.71		0.74		0.74	

TABLE 20

COMPARISON OF COR FACTOR SCORES FOR FIRST YEAR B.S. GRADUATES 1973-80

Years (N)	Factor I		Factor II		Factor III	
	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD
1973 (N=18)	42.4	3.7	68.3	4.9	22.6	2.7
1974 (N=31)	44.0	3.2	67.3	5.2	22.0	3.0
1975 (N=31)	43.4	3.0	66.4	6.8	21.6	2.8
1976 (N=21)	44.0	3.9	67.2	5.9	22.5	2.0
1977 (N=30)	44.4	3.8	69.4	5.2	24.9	2.8
1978 (N=27)	42.8	4.1	61.8	5.0	23.7	2.6
1979 (N=40)	39.0	4.8	60.9	7.5	21.1	2.9
1980 (N=16)	39.8	4.6	65.4	6.8	22.3	2.8
F-Ratio	1.32		0.98		1.22	

TABLE 21

COMPARISON OF COR FACTOR SCORES FOR FIRST YEAR M.A. GRADUATES 1973-80

Years (N)	Factor I		Factor II		Factor III	
	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD
1973 (N=3)	39.0	5.5	65.0	10.5	22.7	3.2
1974 (N=13)	40.2	4.3	66.7	5.9	22.6	3.1
1975 (N=12)	42.2	4.5	66.0	5.8	23.0	3.2
1976 (N=5)	43.4	3.1	67.0	4.8	23.1	3.4
1977 (N=20)	44.4	3.0	68.5	5.5	24.5	2.8
1978 (N=17)	41.3	4.9	63.1	6.7	22.4	3.4
1979 (N=18)	40.8	3.9	61.7	8.3	21.4	2.9
1980 (N=40)	41.1	3.4	65.0	3.7	22.8	2.6
F-Ratio	1.63		1.53		0.89	

TABLE 22

COMPARISON OF TUCKMAN RATINGS FOR FIRST YEAR B.S. GRADUATES 1973-80

Years (N)	Creativity		Dynamism (Dominance of Energy)		Organized Demeanor (Organization and Control)		Warmth and Acceptance	
	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD
1976 (N=17)	25.7	8.4	25.8	8.2	32.9	7.1	31.6	8.2
1977 (N=30)	31.8	8.2	31.9	6.5	36.4	5.9	39.5	4.8
1978 (N=26)	26.1	4.7	28.7	8.6	32.2	4.8	35.5	3.4
1979 (N=42)	25.8	5.4	25.9	5.1	31.6	5.3	33.3	6.4
1980 (N=15)	28.2	4.1	31.6	5.0	33.9	2.7	34.9	3.4
F-Ratio	4.86**		5.24**		3.81**		7.61**	

**Significant at the .01 level.

TABLE 23

COMPARISON OF TUCKMAN RATINGS FOR FIRST YEAR M.A. GRADUATES 1973-80

Years (N)	Creativity		Dynamism (Dominance of Energy)		Organized Demeanor (Organization and Control)		Warmth and Acceptance	
	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD
1976 (N=4)	29.0	5.6	28.5	4.1	36.5	3.4	33.8	2.9
1977 (N=20)	30.7	7.9	31.4	6.0	37.0	4.2	38.3	5.1
1978 (N=17)	27.2	5.7	32.6	5.1	34.9	4.2	35.6	4.4
1979 (N=18)	28.3	6.0	29.4	4.9	33.4	4.8	33.7	5.2
1980 (N=40)	28.9	6.8	30.7	6.7	34.3	4.0	34.3	4.0
F-Ratio	0.66		0.84		2.08		3.27*	

*Significant difference at the .05 level.

Also it appeared that the M.A. may not be fully affecting the individuals who complete the degree. Many of the individuals in the present study who have completed the M.A. completed their degree in an area such as Administration or Supervision. Thus, it is difficult to measure the full impact of a degree completed by someone who has not majored at the graduate level in a particular teaching area such as elementary or secondary teaching field.

Comparison of First Year Elementary and Secondary Graduates

The purpose of this section of the report was to present a comparison between elementary and secondary graduates at the two degree levels. Elementary graduates were those who, in their first year in the study, were teaching in grades K-6. Secondary graduates were teaching in grades 7-12. Since it had been previously established that there were no significant differences across time, the data were combined by degree level for further study. Data were shown only for the period 1977-80 since it was felt it was the most reliable and valid.

Personal Data

Table 24 shows a comparison between elementary and secondary B.S. graduates on selected variables. Use of the Analysis of Variance (ANOVA) technique indicated there were no significant differences between the elementary and secondary groups on the four variables. Secondary graduates had achieved slightly higher scores on the Weighted Common Examinations of the NTE, ACT Composite scores, and overall Quality Point Averages. Based on F-Scale scores, the secondary graduates appeared to be somewhat less authoritarian than the elementary graduates.

Table 25 shows similar data for those individuals who had completed the M.A. The sample size of five for the secondary teachers is low and may have led to spurious results. Application of the ANOVA indicated there were no significant differences across the four variables studied. Elementary graduates had achieved slightly higher Weighted Common Examinations Scores, ACT Composite scores, and overall Quality Point Averages. This was reverse of the results for the B.S. graduates. Secondary graduates appeared to be slightly more authoritarian in their beliefs than Elementary graduates.

In general, the M.A. graduates had achieved lower scores on the Weighted Common Examinations and ACT Composite scores than the B.S. graduates. Also, the M.A. graduates appeared to be more authoritarian in their beliefs than the B.S. graduates.

Principals' Ratings

Table 26 shows a summary of the comparisons made between elementary and secondary graduates on ratings given by principals. There were no significant differences between the two groups on each of the four variables under study.

Table 27 shows similar data for those individuals who had received the M.A. There was a significant difference in favor of the secondary

TABLE 24

COMPARISON OF WEIGHTED COMMONS SCORES (NTE), F-SCALE SCORES, ACT COMPOSITE SCORES, AND QUALITY POINT AVERAGE FOR FIRST YEAR B.S. ELEMENTARY AND SECONDARY GRADUATES 1977-80

Area	Elementary			F-Ratio	Secondary		
	N	$\bar{x}$	SD		N	$\bar{x}$	SD
Wt. Comm. (NTE)	90	573.3	68.5	0.21	17	581.8	82.5
F-Scale	90	105.1	20.5	0.01	16	104.9	15.7
ACT Comp.	70	18.4	5.3	0.47	18	19.3	5.1
QPA	97	3.17	0.72	0.13	18	3.23	0.42

TABLE 25

COMPARISON OF WEIGHTED COMMONS SCORES (NTE), F-SCALE SCORES, ACT COMPOSITE SCORES, AND QUALITY POINT AVERAGE FOR FIRST YEAR M.A. ELEMENTARY AND SECONDARY GRADUATES 1977-80

Area	Elementary			F-Ratio	Secondary		
	N	$\bar{x}$	SD		N	$\bar{x}$	SD
Wt. Comm. (NTE)	39	552.6	86.2	0.69	3	510.7	35.9
F-Scale	82	109.0	9.2	0.01	5	110.4	12.0
ACT Comp.	44	17.9	4.8	1.42	4	15.0	2.4
QPA	89	3.74	23.6	1.33	5	3.62	26.0

TABLE 26

COMPARISON OF PRINCIPALS' RATINGS FOR FIRST YEAR B.S. ELEMENTARY AND SECONDARY GRADUATES 1977-80

Factor	Elementary (N=82)		Secondary (N=17)		F-Ratio
	$\bar{x}$	SD	$\bar{x}$	SD	
I Subject Matter Competence	4.3	0.7	4.3	0.8	0.01
II Relations with Students	4.4	0.7	4.2	1.0	1.50
III Appropriateness of Assignments	4.2	0.7	4.2	0.9	0.01
IV Overall Effectiveness	4.2	0.8	4.1	0.9	0.09

TABLE 27

COMPARISON OF PRINCIPALS' RATINGS FOR FIRST YEAR M.A. ELEMENTARY AND SECONDARY GRADUATES 1977-80

Factor	Elementary (N=89)		Secondary (N=5)		F-Ratio
	$\bar{x}$	SD	$\bar{x}$	SD	
I Subject Matter Competence	4.5	0.6	4.8	0.4	1.42
II Relations with Students	4.5	0.6	5.0	0.0	2.66
III Appropriateness of Assignments	4.3	0.6	4.8	0.4	3.13
IV Overall Effectiveness	4.4	0.6	5.0	0.0	4.62*

*Significant difference at the .04 level.

group in rating of overall effectiveness. It should be noted that the sample size for the secondary group was only five. In general the M.A. graduates were rated higher than the B.S. graduates by principals.

Student Evaluation of Teaching

Table 28 shows a comparison of SET-I ratings by students of those individuals who had received the B.S. Elementary graduates were rated significantly higher than secondary graduates on the factors of Friendly and Cheerful and their Composite Score. Elementary graduates were rated higher than the secondary graduates on all factors. Because of the small number of M.A. secondary graduates, no analyses were possible on the SET-I.

Independent Observers

Tables 29 and 30 show, respectively, comparison of seleced Flanders ratios for the B.S. and M.A. graduates. There were no significant differences between the elementary and secondary groups. In general elementary B.S. graduates were using more indirect teaching in their classrooms than the secondary graduates. Also, there was more student talk going on. In comparison, the M.A. group was almost reverse with the secondary graduates using more indirect teaching techniques.

Comparisons of the results of the use of the Classroom Observation Record with the B.S. and M.A. graduates are shown in Tables 31 and 32. There were no significant differences between teaching levels for both groups. In general, elementary graduates were rated slightly higher than secondary graduates. Also, M.A. graduates were rated slightly higher than B.S. graduates.

The results of the use of the Tuckman Teacher Feedback form for the two groups are shown in Tables 33 and 34. B.S. elementary graduates were rated significantly higher than secondary graduates on the Organized Demeanor (Organization and Control) factor of the instrument. Elementary B.S. graduates were significantly more organized than secondary graduates. In all cases the elementary graduates were rated higher than the secondary, and in general M.A. graduates were rated higher than B.S. graduates.

Summary

In summary this section contains a comparison between those individuals teaching at the elementary level and those teaching at the secondary level during their first year of participation in the followup study. Comparisons were made by degree level, i.e., B.S. or M.A. In general elementary graduates were rated higher than secondary graduates, and B.S. graduates were rated higher than M.A. graduates. In most cases there were no significant differences across teaching level.

Comparison of 1979 Graduates Across Three Years

In 1979 two groups of individuals who had just completed their B.S. or M.A. were added to the study. Each group of graduates was followed for three years, with the last data being collected in the late Fall of 1981. Thus, the graduates were in their third year of teaching after

TABLE 28

COMPARISON OF SET-I SCORES FOR FIRST YEAR B.S.
ELEMENTARY AND SECONDARY GRADUATES 1977-80

Factor	Elementary (N=58) $\bar{X}$	Elementary (N=58) SD	Secondary (N=10) $\bar{X}$	Secondary (N=10) SD	F-Ratio
I Friendly and Cheerful	336.3	45.5	289.8	32.0	9.59**
II Knowledgeable and Poised	332.4	37.4	323.4	33.0	0.51
III Lively and Interesting	293.3	51.9	266.0	31.8	2.58
IV Firm Control (Discipline)	298.9	50.4	283.5	55.7	0.77
V Non-Directive (Democratic Proc.)	253.1	59.3	221.0	38.1	2.72
Composite Score	303.6	36.7	276.7	22.8	4.98**

**Significant difference at or beyond the .01 level.

TABLE 29

COMPARISON OF FLANDERS RATIOS FOR FIRST YEAR B.S.
ELEMENTARY AND SECONDARY GRADUATES 1977-80

Ratio	Elementary (N=96) $\bar{X}$	Elementary (N=96) SD	Secondary (N=18) $\bar{X}$	Secondary (N=18) SD	F-Ratio
I/D	1.63	3.44	0.60	0.85	0.93
i/d	1.19	3.14	0.39	0.27	1.16
ST/TT	1.16	4.09	1.05	1.11	0.02
Sil/Tot	0.89	0.31	0.63	0.47	0.12
Lec/Tot	0.72	0.23	0.41	0.22	0.19

TABLE 30

COMPARISON OF FLANDERS RATIOS FOR FIRST YEAR M.A.
ELEMENTARY AND SECONDARY GRADUATES 1977-80

Ratio	Elementary (N=88)		Secondary (N=5)		F-Ratio
	$\bar{x}$	SD	$\bar{x}$	SD	
I/D	1.37	1.77	1.35	1.67	0.01
i/d	0.66	0.61	0.73	0.41	0.06
ST/TT	0.65	0.54	0.66	0.49	0.00
Sil/Tot	0.72	1.69	0.83	0.69	0.02
Lec/Tot	0.43	0.21	0.43	0.15	0.01

TABLE 31

COMPARISON OF COR FACTOR SCORES FOR FIRST YEAR B.S.
ELEMENTARY AND SECONDARY GRADUATES 1977-80

Factor	Elementary (N=97)		Secondary (N=18)		F-Ratio
	$\bar{x}$	SD	$\bar{x}$	SD	
I	40.2	4.8	39.8	5.9	0.38
II	60.8	7.8	62.2	8.5	0.86
III	22.3	2.9	20.6	3.1	0.67

TABLE 32

COMPARISON OF COR FACTOR SCORES FOR FIRST YEAR M.A.
ELEMENTARY AND SECONDARY GRADUATES 1977-80

Factor	Elementary (N=89)		Secondary (N=5)		F-Ratio
	$\bar{x}$	SD	$\bar{x}$	SD	
I	41.7	4.0	40.8	2.9	0.24
II	64.8	5.8	60.4	10.7	2.51
III	22.9	3.0	20.8	2.4	2.32

TABLE 33

COMPARISON OF TUCKMAN RATINGS FOR FIRST YEAR B.S.
ELEMENTARY AND SECONDARY GRADUATES 1977-80

Factor	Elementary (N=95)		Secondary (N=18)		F-Ratio
	$\bar{x}$	SD	$\bar{x}$	SD	
I Creativity	27.6	6.6	28.4	5.7	0.20
II Dynamism (Dominance of Energy)	28.9	6.7	28.6	7.1	0.05
III Organized Demeanor (Organization and Control)	33.8	5.2	30.9	6.2	4.41*
IV Warmth and Acceptance	36.0	5.1	34.0	7.6	1.92

*Significant difference at the .05 level.

TABLE 34

COMPARISON OF TUCKMAN RATINGS FOR FIRST YEAR M.A. ELEMENTARY AND SECONDARY GRADUATES 1977-80

Factor	Elementary (N=89)		Secondary (N=5)		F-Ratio
	$\bar{x}$	SD	$\bar{x}$	SD	
I Creativity	28.8	6.8	28.4	6.2	0.01
II Dynamism (Dominance of Energy)	31.1	5.9	28.8	6.3	0.69
III Organizaed Demeanor (Organization and Control)	34.7	4.4	34.4	2.3	0.03
IV Warmth and Acceptance	35.2	4.8	32.0	5.9	2.15

TABLE 35

COMPARISON OF MEAN WEIGHTED COMMONS SCORES (NTE) FOR 1979 B.S. AND M.A. GRADUATES ACROSS THREE YEARS

Degree	1979			1980			1981			F-Ratio
	N	$\bar{x}$	SD	N	$\bar{x}$	SD	N	$\bar{x}$	SD	
Bachelor's	38	573.9	71.9	19	576.3	75.0	7	533.6	69.3	1.09
Master's	9	522.4	71.8	6	515.7	84.9	3	449.7	65.0	1.01

TABLE 36

COMPARISON OF MEAN ACT COMPOSITE SCORES FOR 1979 B.S. AND M.A. GRADUATES ACROSS THREE YEARS

Degree	1979			1980			1981			F-Ratio
	N	$\bar{x}$	SD	N	$\bar{x}$	SD	N	$\bar{x}$	SD	
Bachelor's	31	18.5	4.6	17	18.0	4.2	5	16.0	3.8	0.67
Master's	13	16.9	4.6	10	16.9	5.2	5	16.2	5.9	0.04

receiving their degree. Previous studies of groups of individuals over five years indicated that there were few significant differences across time and that they may have reached their optimum level of teaching during the third year (see Appendix 50 and selected yearly reports of the project). Because of financial limitations and the high level of attrition, graduates have been followed for only three years.

The purpose of this section of the Chapter is to present the results of following a sample of 1979 B.S. graduates and a sample of 1979 M.A. graduates across three years. In general, the B.S. graduates at the time of initial entry into the study were in their first full year of teaching, while the M.A. graduates had completed a mean of 5.5 years (SD=2.5) of full time teaching. Over the three years of the study, the rate of attrition was about 75 percent for both groups. Therefore, the data analyses may be questionable. However, the results compare favorably with earlier studies previously cited.

Personal Data

Mean Weighted Common Examinations scores for the B.S. and M.A. individuals in the study during the third year were lower than for the initial group, respectively, that started in 1979. However, the differences were not significant (Table 35).

Table 36 shows a comparison across three years of the mean ACT Composite scores for the two groups. There were no significant differences across time. However, the groups that had completed three years in the study had generally lower ACT scores than the total group that entered the study in 1979.

Mean Overall Quality Point Averages for the two groups are shown in Table 37. There were no significant differences across time. The mean QPA's varied less than 0.10 points on a scale of A=4.0 to D=1.0.

Table 38 contains a summary of the mean F-Scale scores across time. There were no significant differences; however, the surviving group of M.A. graduates had achieved lower F-Scale scores than the group that initially entered the study in 1973.

It appeared that the surviving group of individuals at both the B.S. and M.A. level had achieved lower NTE scores, lower initial ACT scores, and were somewhat less authoritarian in their beliefs than the initial group of graduates. It should be kept in mind by the reader that the individuals initially volunteered to participate in the study. Individuals have withdrawn from the study for a variety of reasons. At least 35 percent of those individuals who dropped out of the study were still teaching in the third year within the defined geographical area of the research project. Therefore, the results may not be fully indicative of the total group of individuals who initially entered the project in 1979.

TABLE 37

COMPARISON OF MEAN QUALITY POINT AVERAGES FOR 1979 B.S. AND M.A. GRADUATES ACROSS THREE YEARS

Degree	1979			1980			1981			F-Ratio
	N	x	SD	N	x	SD	N	x	SD	
Bachelor's	40	3.19	0.52	21	3.09	0.40	7	3.10	0.53	0.33
Master's	18	3.69	0.31	11	3.72	0.34	6	3.67	0.46	0.05

TABLE 38

COMPARISON OF F-SCALE SCORES FOR 1979 B.S. AND M.A. GRADUATES ACROSS THREE YEARS

Degree	1979			1980			1981			F-Ratio
	N	$\bar{X}$	SD	N	$\bar{X}$	SD	N	$\bar{X}$	SD	
Bachelor's	36	109.1	17.0	19	106.5	15.7	7	109.1	13.5	0.16
Master's	16	105.7	16.2	10	104.1	15.3	5	99.2	12.9	

Principals' Ratings

Tables 39 and 40 show, respectively, for the B.S. and M.A. groups the mean ratings across three years for the four variables of the principals' rating device. There were no significant differences across time. In general, ratings for the B.S. group increased across time, while the ratings for the M.A. group decreased slightly. As a whole the M.A. group was rated higher than the B.S. group.

Student Evaluation of Teaching

Tables 41 and 42 show, respectively, for the B.S. and M.A. groups the results of the administration of the SET-I across time. Generally, M.A. ratings were higher; however, over time mean ratings on the factors for the B.S. group increased while mean ratings for the M.A. group decreased slightly. These ratings parallel the results obtained with ratings by principals. There were no significant differences across time.

An examination of the results of the use of Flanders Interaction Analysis across three years with the M.A. group (Table 46) revealed a similar pattern except the lecture to total teaching ratio decreased slightly. There were no significant differences across the three year period.

Results from the use of the Classroom Observation Record are shown in Tables 47 and 48. In general, factor scores across time increased for the B.S. group (Table 47). However, the differences were not significant. A similar pattern was noted for the M.A. group (Table 38). However, there was a significant difference across time for Factor III, Students. There were significantly better relationships between the teachers and students in the third year as compared with the initial year the group participated in the study.

The results of the use of the Tuckman with the two groups are shown in Tables 49 (B.S. group) and 50 (M.A. group). In general, the mean scores increased across time; however, the differences were not significant.

Summary

Those individuals that remained in the study for three years achieved lower scores on the NTE and ACT and were less authoritarian in their beliefs than the groups that entered the study in 1979. This was true for both the B.S. and M.A. groups. Principal ratings generally increased across time with M.A. individuals being rated higher than the B.S. group. Student ratings across time increased for the B.S. group and decreased for the M.A. group. Results of the use of interaction analysis indicated that the groups achieved less satisfactory scores during their third year when compared with first year observations. In comparison, results of the use of the Classroom Observation Record and the Tuckman Teacher Feedback Form suggested that the individuals in both groups were functioning at their highest level during the third year after receiving their degree. Thus, the findings of this part of the study were consistent with the results reported earlier.

TABLE 39

COMPARISON OF PRINCIPAL RATINGS FOR 1979 B.S. GRADUATES ACROSS THREE YEARS

Factor	1979(N=39)		1980(N=18)		1981(N=6)		All Yrs.(N=63)		F-Ratio
	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	
I Subject Matter Competence	4.3	0.7	4.1	0.8	4.7	0.5	4.2	0.7	1.62
II Relations with Students	4.3	0.9	4.1	1.1	4.7	0.5	4.3	1.0	0.77
III Appropriateness of Assignments	4.2	0.8	3.9	0.9	4.3	0.5	4.1	0.8	0.75
IV Overall Effectiveness	4.2	0.7	3.9	1.0	4.5	0.5	4.2	0.8	1.75

TABLE 40

COMPARISON OF PRINCIPAL RATINGS FOR 1979 M.A. GRADUATES ACROSS THREE YEARS

Factor	1979(N=18) $\bar{x}$	1979(N=18) SD	1980(N=11) $\bar{x}$	1980(N=11) SD	1981(N=6) $\bar{x}$	1981(N=6) SD	All Yrs.(N=35) $\bar{x}$	All Yrs.(N=35) SD	F-Ratio
I Subject Matter Competence	4.4	0.6	4.5	0.7	4.3	0.5	4.5	0.6	0.23
II Relations with Students	4.7	0.5	4.5	0.8	4.3	0.5	4.6	0.6	1.23
III Appropriateness of Assignments	4.4	0.6	4.4	0.7	4.3	0.6	4.4	0.6	0.10
IV Overall Effectiveness	4.5	0.6	4.3	0.8	4.3	0.5	4.4	0.7	0.44

TABLE 41

COMPARISON OF SET-I SCORES FOR 1979 B.S. GRADUATES ACROSS THREE YEARS

Factor	1979(N=24) $\bar{x}$	1979(N=24) SD	1980(N=16) $\bar{x}$	1980(N=16) SD	1981(N=5) $\bar{x}$	1981(N=5) SD	All Yrs.(N=45) $\bar{x}$	All Yrs.(N=45) SD	F-Ratio
I Friendly and Cheerful	323.7	49.1	325.7	59.6	345.2	34.6	326.8	51.3	0.36
II Knowledgeable and Poised	335.7	31.8	325.7	50.0	340.2	23.8	332.6	38.2	0.43
III Lively and Interesting	287.3	56.8	285.0	50.1	293.6	25.0	287.2	51.0	0.05
IV Firm Control (Discipline)	301.0	47.7	320.1	60.8	292.0	35.4	306.8	51.7	0.88
V Non-Directive (Democratic Process)	239.8	61.7	242.4	53.8	265.2	25.3	243.5	55.6	0.43
Composite Score	297.5	36.2	299.6	37.0	307.2	19.3	299.3	34.6	0.16

TABLE 42

COMPARISON OF SET-I SCORES FOR 1979 M.A. GRADUATES ACROSS THREE YEARS

Factor	1979(N=6)		1980(N=4)		1981(N=3)		All Yrs.(N=13)		F-Ratio
	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD	
I Friendly and Cheerful	348.0	29.7	342.5	12.2	343.0	25.2	345.2	22.8	0.07
II Knowledgeable and Poised	350.3	14.0	344.8	12.6	352.3	4.9	349.1	11.6	0.39
III Lively and Interesting	307.2	40.8	280.0	33.1	283.3	23.7	293.3	35.2	0.85
IV Firm Control (Discipline)	316.0	45.0	287.0	34.5	260.0	19.1	294.2	41.8	2.28
V Non-Directive (Democratic Process)	252.8	49.6	248.0	36.2	221.7	33.9	244.2	41.4	0.55
Composite Score	315.0	25.5	299.5	19.7	292.3	16.1	305.0	22.6	1.22

TABLE 43

COMPARISON OF SET-II SCORES FOR 1979 B.S. GRADUATES ACROSS THREE YEARS

Factor	1979(N=15)		1980(N=6)		1981(N=2)		All Yrs.(N=23)		F-Ratio
	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD	
I Rapport	5.6	0.4	5.7	0.7	6.0	0.5	6.4	0.4	1.52
II Interactional Competence	4.5	0.3	4.9	1.1	4.6	0.3	4.7	0.5	1.77
III Stimulating Interaction Style (Comb. of I & II)	10.1	0.6	10.6	0.8	10.6	0.8	10.3	0.7	1.76
IV Unreasonable Negativity	8.6	0.7	8.1	0.5	8.3	0.3	8.4	0.7	0.79
V Fosterance of Self-Esteem	6.8	0.5	7.1	0.7	7.2	0.3	6.9	0.5	0.90

TABLE 44

COMPARISON OF SET-II SCORES FOR 1979 M.A. GRADUATES ACROSS THREE YEARS

Factor	1979(N=12)		1980(N=7)		1981(N=3)		All Yrs.(N=22)		F-Ratio
	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD	
I Rapport	5.1	1.5	5.6	0.7	5.2	0.2	5.3	1.2	0.50
II Interactional Competence	4.0	1.3	4.8	0.6	4.8	0.6	4.4	1.1	1.78
III Stimulating Interaction Style (Comb. of I & II)	9.1	0.9	10.4	1.3	10.0	0.5	10.0	1.0	1.25
IV Unreasonable Negativity	8.9	0.7	8.6	1.0	8.4	0.6	8.7	0.8	0.60
V Fosterance of Self-Esteem	7.0	0.6	7.2	1.0	6.9	0.5	7.0	0.7	0.23

TABLE 45

COMPARISON OF FLANDERS RATIOS FOR 1979 B.S. GRADUATES ACROSS THREE YEARS

Ratio	1979(N=40)		1980(N=21)		1981(N=7)		All Yrs.(N=68)		F-Ratio
	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD	
I/D	1.23	1.94	0.72	0.67	0.53	0.20	0.97	1.57	1.69
i/d	0.49	0.32	0.41	0.24	0.21	0.60	0.40	0.33	0.59
ST/TT	0.82	0.93	0.51	0.25	0.43	0.26	0.68	0.74	1.63
Sil/Tot	0.71	0.75	1.28	2.10	0.11	0.12	0.83	1.33	2.49
Lec/Tot	0.52	0.15	0.44	0.22	0.56	0.37	0.50	0.21	1.37

TABLE 46

COMPARISON OF FLANDERS RATIOS FOR 1979 M.A. GRADUATES ACROSS THREE YEARS

Ratio	1979(N=18)		1980(N=11)		1981(N=6)		All Yrs.(N=35)		F-Ratio
	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD	
I/D	1.12	0.97	0.94	0.76	1.03	0.82	1.05	0.87	0.14
i/d	0.55	0.34	0.65	0.36	0.67	0.57	0.60	0.37	0.29
ST/TT	0.65	0.38	0.53	0.18	0.31	0.18	0.56	0.32	2.64
Sil/Tot	0.83	0.72	0.57	0.58	0.60	0.35	0.61	0.66	0.34
Lec/Tot	0.50	0.18	0.36	0.18	0.42	0.35	0.44	0.22	1.66

TABLE 47

COMPARISON OF COR FACTOR SCORES FOR 1979 B.S. GRADUATES ACROSS THREE YEARS

Factor	1979(N=40)		1980(N=21)		1981(N=7)		All Yrs.(N=68)		F-Ratio
	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD	
I	39.4	4.7	39.6	6.7	39.8	6.4	39.5	6.0	0.78
II	60.9	7.5	61.6	6.7	61.8	6.7	61.2	6.7	0.68
III	21.1	2.9	21.8	3.4	21.8	3.3	21.4	3.1	0.45

TABLE 48

COMPARISON OF COR FACTOR SCORES FOR 1979 M.A. GRADUATES ACROSS THREE YEARS

Factor	1979(N=18)		1980(N=11)		1981(N=6)		All Yrs.(N=35)		F-Ratio
	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD	
I	40.8	3.9	42.5	2.0	43.0	3.0	41.7	3.3	1.53
II	61.7	8.3	65.1	5.5	67.8	4.6	63.8	7.2	2.01
III	21.4	2.9	23.5	1.9	24.5	1.8	22.6	2.7	4.50*

*Difference significant at the 0.05 level. Application of the t-test indicate there was a significant difference between the 1979 group and those who were in the study in 1981.

TABLE 49

COMPARISON OF TUCKMAN RATINGS FOR 1979 B.S. GRADUATES ACROSS THREE YEARS

Factor	1979(N=40) $\bar{x}$	1979(N=40) SD	1980(N=20) $\bar{x}$	1980(N=20) SD	1981(N=7) $\bar{x}$	1981(N=7) SD	All Yrs.(N=67) $\bar{x}$	All Yrs.(N=67) SD	F-Ratio
I Creativity	25.8	5.5	24.5	6.4	27.1	5.3	25.5	5.3	0.66
II Dynamism (Dominance of Energy)	25.8	5.1	26.5	6.1	30.7	2.8	26.5	5.4	2.59
III Organized Demeanor (Organization and Control)	31.4	5.4	32.7	8.7	36.1	2.1	32.3	6.4	1.71
IV Warmth and Acceptance	33.1	6.5	31.5	7.2	36.7	2.8	33.0	6.5	1.74

TABLE 50

COMPARISON OF TUCKMAN RATINGS FOR 1979 M.A. GRADUATES ACROSS THREE YEARS

Factor	1979(N=18)		1980(N=11)		1981(N=6)		All Yrs.(N=35)		F-Ratio
	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	
I Creativity	28.3	6.0	27.9	5.2	29.0	5.7	28.3	5.5	0.07
II Dynamism (Dominance of Energy)	29.4	4.9	28.5	6.6	31.7	3.2	29.5	5.2	0.69
III Organized Demeanor (Organization and Control)	33.4	4.8	35.2	5.0	35.2	1.3	34.3	4.5	0.65
IV Warmth and Acceptance	33.7	5.2	33.8	6.0	35.5	1.6	34.0	5.0	0.31

General Conclusions

It seems warranted to advance several general conclusions based on the results of the various studies contained in this Chapter of the report.

1. First year graduates at both the B.S. and M.A. over the past eight years have changed little. There have been some general trends that indicated that the first year graduates who had entered the study in the past three years appeared to be functioning at a lower level than graduates who entered the study during the first three years of its operation.

2. Correlational patterns of the variables in the study were similar from year to year. This indicated that there was consistency in the manner that data were being collected.

3. In general, elementary graduates appeared to be functioning at a higher level than secondary graduates.

4. In general, B.S. graduates were functioning at a level comparable to or at a level higher than the M.A. graduates. It should be pointed out that many of the M.A. graduates completed graduate work in an area other than elementary or secondary education.

CHAPTER III

PRESENTATION AND ANALYSES OF DATA FOR 1981 GRADUATES AND COMPARISONS WITH 1979 AND 1980 GRADUATES

Chapter III contains a presentation and analyses of data for those individuals who received the B.S. or M.A. in 1981 and were participating in the study for the first time. Also shown are comparisons of the data with other first year participants for the period 1979 through 1980. Initially 47 individuals (12 at the B.S. and 35 at the M.A. levels) agreed to participate in the study. Reasonably complete data were collected on 10 at the B.S. level and 33 at the M.A. level. At the conclusion of the data collection period, it was found that only one individual out of each group was teaching above the sixth grade. Therefore, the data contained in this chapter was confined to those individuals who were teaching in grades K-6.

This chapter is divided into five sections. The first section contains analyses of the correlation of selected variables for the two groups. The second section shows comparisons between the B.S. and M.A. graduates. The third and fourth sections contain, respectively, comparisons of the data across three years for the B.S. and M.A. subjects. The fifth section includes a brief chapter summary.

Correlational Analyses

Table 51 shows the sample size, means, and standard deviations for selected variables. Also shown is a correlation matrix for the variables. Six individuals were teaching in grades K-3 while the remainder were in grades 4-6. Since the sample size was small, scores from the SET-I and SET-II were excluded from the analyses.

In all cases the correlations may be suspect since the sample size was limited to a maximum of ten. In general there were significant ($p < .05$) correlations between the factors from the Classroom Observation Record and the Tuckman Teacher Feedback Form. As would be expected there were high positive correlations between such variables as the NTE, ACT, and quality point averages. Also high positive correlations were noted between quality point average and scores from the COR and Tuckman. These were in evidence in earlier studies.

Table 52 shows similar data for those individuals who had received the M.A. Data from the SET-II were omitted because of the small sample size. The correlation pattern for this group of individuals was similar to that presented for a larger group of M.A. graduates (Chapter II, page 13).

Comparison of B.S. and M.A. Graduates

Table 53 shows a comparison between the B.S. and M.A. graduates for certain career base line variables. In general M.A. graduates had achieved higher ACT Composite Scores and higher scores on the Weighted Common Examinations of the National Teacher Examinations. The differences

Table 51

CORRELATION MATRIX FOR SELECTED VARIABLES FOR 1981 D.S. GRADUATES*

	N	$\bar{X}$	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
1. Wt. Curm. (NTE)	9	518.3	67.0	1000	659	654	599	466	664	465	577	-668	575	478	-510	-289	248	340	340	372	135	752	484	097
2. ACT Comp.	10	12.2	3.6		1000	451	508	374	465	374	374	-546	466	398	-294	-297	167	149	149	108	207	659	252	111
3. QPA	10	2.95	0.47			1000	787	-111	388	-111	576	-306	616	481	-556	-503	153	548	548	565	407	647	565	361
4. Maj. QPA	10	3.34	0.41				1000	-254	392	-254	399	-309	515	443	-475	-629	-056	442	442	098	190	624	034	069
5. PRIN. I	7	4.4	0.5					1000	417	417	417	-609	256	334	-052	-231	-204	-163	-163	548	060	330	460	080
6. PRIN. II	7	4.4	0.5						1000	417	417	-300	540	542	-560	-419	-373	489	489	548	111	268	601	636
7. PRIN. III	7	4.4	0.5							1000	417	-609	256	334	-052	-231	-204	-163	-163	548	059	330	460	080
8. PRIN. IV	7	4.4	0.5								1000	-267	429	431	-631	-400	-394	163	-163	548	059	330	460	080
9. F-Scale	10	107.9	20.4									1000	-485	-443	392	327	066	-485	-485	453	-127	-505	-461	-292
10. I/D	10	1.15	1.74										1000	978	108	-472	055	331	331	294	250	370	468	371
11. I/d	10	0.68	0.60											1000	224	-513	-071	228	228	206	217	268	345	345
12. ST/TT	10	0.47	0.26												1000	257	104	-367	-367	-481	-188	-505	-298	-141
13. Sil/Tot	10	0.52	0.45													1000	295	-458	-458	-398	-612	-549	-127	-487
14. Lec/Tot	10	0.31	0.13														1000	336	336	149	356	392	474	188
15. COR-I	10	42.0	1.6															1000	470	571	642	502	578	706
16. COR-II	10	64.4	2.3																1000	-147	642	502	578	706
17. COR-III	10	22.9	2.0																	1000	606	522	857	624
18. TUCK-I	10	29.4	7.1																		1000	523	576	871
19. TUCK-II	10	33.6	4.5																			1000	460	238
20. TUCK-III	10	35.3	2.7																				1000	676
21 TUCK-IV	10	35.3	2.3																					1000

* Underline indicates a correlation significant at or beyond the .05 level. Decimal points on all correlations have been omitted.

Table 32

CORRELATION MATRIX FOR SELECTED VARIABLES FOR 1981 M. A. GRADUATES*

		N	x	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
1.	Mt. Comm. (NTE)	9	566.1	68.3	1000	760	277	286	-546	286	178	-429	666	333	-665	475	-441	364	300	109	-205	-341	147	572	572	341	470	443	295	552
2.	ACT Comp.	13	19.4	4.4		1000	795	003	-814	-100	-231	-588	-405	-441	-565	615	-167	-490	332	-447	-613	-372	772	268	268	423	081	665	566	421
3.	GPA	32	3.77	0.17			1000	258	-328	215	280	-303	-245	-037	-246	014	-283	-130	149	-135	-275	-046	269	339	339	300	204	006	309	144
4.	PRIN. I	32	4.4	0.6				1000	364	786	739	-146	-177	119	-064	-019	-072	-142	043	-244	-082	-073	154	-059	-059	123	032	-039	267	-073
5.	PRIN. II	32	4.6	0.6					1000	353	449	319	316	251	542	153	298	423	-151	121	340	169	-348	-105	-105	132	049	-153	-004	-043
6.	PRIN. III	32	4.3	0.6						1000	786	-205	-147	048	-066	-125	049	001	052	-110	006	020	-010	-113	-113	-023	-111	-306	100	-246
7.	PRIN. IV	32	4.4	0.6							1000	-143	139	268	107	237	107	256	082	-091	009	-121	031	196	196	081	160	-082	029	-073
8.	F-Scale	29	105.4	21.6								1000	184	111	285	-048	089	107	-380	384	352	277	-324	-068	-068	115	-019	-085	-105	101
9.	SET-I-1	22	357.0	26.6									1000	517	680	226	099	794	355	212	104	052	-069	013	013	058	301	375	104	430
10.	SET-I-2	22	359.7	15.1										1000	301	177	328	493	315	257	181	161	053	199	199	057	231	076	-164	174
11.	SET-I-3	22	307.0	45.3											1000	149	283	803	273	034	140	183	-169	-135	-135	309	404	214	141	369
12.	SET-I-4	22	311.8	35.0												1000	034	363	-334	-116	046	-005	-039	-050	-050	072	059	270	-208	324
13.	SET-I-5	22	272.0	27.9													1000	371	109	-324	-039	-110	212	081	081	115	-040	-108	-176	122
14.	SET-I-Tot	22	316.7	20.2														1000	248	-019	105	139	-014	-038	-038	215	475	242	052	407
15.	I/D	32	1.25	1.70															1000	-110	-183	-314	508	149	149	-184	186	-273	084	-110
16.	i/d	32	0.52	0.48																1000	533	007	-551	100	100	-098	057	-241	-296	-199
17.	ST/TT	32	91.0	37.7																	1000	079	-437	-220	-220	+236	-120	-454	-304	-064
18.	SYI/Tot	32	29.6	34.0																		1000	+235	-217	-217	-135	-123	-115	044	157
19.	Lec/Tot	32	0.48	0.25																			1000	-301	-001	144	+052	221	227	013
20.	COR-I	32	42.2	1.5																				1000	723	491	354	300	174	270
21.	COR-II	32	66.2	3.0																					1000	491	354	400	174	270
22.	COR-III	32	23.8	1.6																						1000	525	476	553	628
23.	TUCK-I	31	31.6	5.5																							1000	432	247	402
24.	TUCK-II	31	33.5	3.7																								1000	154	571
25.	TUCK-III	31	36.4	1.6																									1000	454
26.	TUCK-IV	31	35.9	2.4																										1000

* Underline indicates a correlation significant at or beyond the .05 level. Decimal points on all correlations have been omitted.

TABLE 53

COMPARISON OF MEAN ACT COMPOSITE SCORES, WEIGHTED COMMON EXAMINATIONS SCORES AND F-SCALE SCORES FOR 1981 B.S. AND M.A. GRADUATES

Degree	ACT			F-Ratio	NTE			F-Ratio	F-Scale			F-Ratio
	N	$\bar{x}$	SD		N	$\bar{x}$	SD		N	$\bar{x}$	SD	
Bachelor's	8	17.6	4.0	0.85	7	513.0	76.4	2.14	8	111.0	21.4	0.42
Master's	13	19.4	4.4		9	566.1	68.5		27	105.4	21.6	

TABLE 54

COMPARISON OF MEAN PRINCIPALS' RATINGS FOR 1981 B.S. AND M.A. GRADUATES

Factor	B.S. (6)		M.A. (32)		F-Ratio
	$\bar{x}$	SD	$\bar{x}$	SD	
I Subject Matter Competence	4.5	0.5	4.4	0.6	0.22
II Relations with Students	4.3	0.5	4.6	0.6	0.72
III Appropriateness of Assignments	4.5	0.5	4.3	0.6	0.73
IV Overall Effectiveness	4.5	0.5	4.4	0.6	0.22

were not significant. B.S. graduates achieved a mean F-scale score of 111.0 in comparison to a mean score of 105.4 for the M.A. graduates. This indicated that the B.S. graduates were slightly more authoritarian in their beliefs. The difference was not significant.

Table 54 shows mean principal ratings for the two groups. There were no significant differences between the two groups on each of the four variables under study. The mean ratings were comparable to ratings given to similar groups in earlier years of the study.

Comparisons of SET-I scores for the two groups are shown in Table 55. The M.A. graduates received higher scores on the six variables under study. The M.A. graduates were rated significantly higher ($p < .05$) on the factor Knowledgeable and Poised and on the composite score. It should be noted, however, that the sample size for the B.S. graduates was three. Therefore, the data analyses may not be valid. Scores from the SET-II (Table 56) indicated that the M.A. graduates received higher scores (n.s.) than the B.S. graduates. However, the small sample sizes would lead one to question the validity of the data and any conclusions drawn.

Mean ratios from the administration of Flander's Interaction Analysis are shown in Table 57. There were no significant differences between the two groups. Results from the use of the Classroom Observation Record are shown in Table 58. In general, M.A. graduates received higher mean ratings than the B.S. graduates. Results from the use of the Tuckman Teacher Feedback Form are shown in Table 59. The M.A. graduates were rated higher (n.s.) than the B.S. graduates.

In summary the M.A. graduates received higher scores and ratings than the B.S. graduates. However, the differences were not significantly different. It might be concluded that the M.A. graduates are better teachers. The question is, however did the degree or maturity and experience make the difference?

Comparison of First Year B.S. Graduates 1979-81

This section contains a summary of the results of comparisons of first year B.S. graduates for the period 1979 through 1981. The analysis of variance technique was employed to determine differences between the three groups.

Table 60 shows a comparison of scores from the ACT, NTE, and F-scale for the three groups. There were no significant differences; however, it was noted that the mean scores from the NTE have decreased over the past three years.

An examination of the mean ratings given by principals (see Table 61) indicated that there were no significant differences across the three groups. Mean ratings for the four variables across time have remained nearly constant.

Results from the administration of the SET-I are shown in Table 62. It should be noted that the sample size for the 1981 graduates was only

TABLE 55

COMPARISON OF MEAN SET-I SCORES FOR 1981 B.S. AND M.A. GRADUATES

Factor	B.S. (3) $\bar{x}$	B.S. (3) SD	M.A. (22) $\bar{x}$	M.A. (22) SD	F-Ratio
I Friendly and Cheerful	354.7	9.0	357.0	26.6	0.02
II Knowledgeable and Poised	327.0	48.8	359.7	15.1	6.80*
III Lively and Interesting	331.7	22.0	307.0	45.3	0.84
IV Firm Control (Discipline)	269.7	56.0	311.8	35.0	3.38
V Non-Directive (Democratic Process)	241.3	13.3	272.0	27.9	3.43
Composite Score	280.3	45.5	318.7	20.2	7.00*

* Significant difference at the .05 level.

TABLE 56

COMPARISON OF MEAN SET-II SCORES FOR 1981 B.S. AND M.A. GRADUATES

Factor	B.S. (4) $\bar{x}$	B.S. (4) SD	M.A. (8) $\bar{x}$	M.A. (8) SD	F-Ratio
I Rapport	5.24	0.11	6.07	1.08	2.25
II Interactional Competence	4.43	0.27	4.47	0.52	0.02
III Stimulating Interaction Style (Comb. of I & II)	9.67	0.20	10.54	1.43	1.40
IV Unreasonable Negativity	9.32	0.24	9.26	1.14	0.01
V Fosterance of Self-Esteem	5.63	2.10	6.64	1.05	0.74

TABLE 57

COMPARISON OF FLANDERS RATIOS FOR 1981 B.S. AND M.A. GRADUATES

Ratio	B.S. (8) $\bar{X}$	B.S. (8) SD	M.A. (31) $\bar{X}$	M.A. (31) SD	F-Ratio
I/D	1.15	1.87	1.24	1.69	0.02
i/d	0.73	0.63	0.52	0.48	0.89
ST/TT	0.50	0.28	0.51	0.38	0.01
Sil/Tot	0.50	0.43	0.30	0.34	2.12
Lec/Tot	0.30	0.15	0.48	0.25	3.78

TABLE 58

COMPARISON OF MEAN COR FACTOR SCORES FOR 1981 B.S. AND M.A. GRADUATES

Factor	B.S. (8) $\bar{X}$	B.S. (8) SD	M.A. (32) $\bar{X}$	M.A. (32) SD	F-Ratio
I	41.5	0.9	42.2	1.5	1.76
II	64.5	2.4	66.2	3.0	2.21
III	22.6	2.2	23.8	1.6	2.97

TABLE 59

COMPARISON OF MEAN TUCKMAN FACTOR SCORES FOR 1981 B.S. AND M.A. GRADUATES

Factor	B.S. (8) $\bar{X}$	B.S. (8) SD	M.A. (31) $\bar{X}$	M.A. (31) SD	F-Ratio
I Creativity	29.8	6.4	31.6	5.5	0.70
II Dynamism (Dominance of Energy)	33.4	5.0	33.8	3.7	0.07
III Organized Demeanor (Organization and Control)	35.0	3.0	36.4	1.8	2.93
IV Warmth and Acceptance	35.3	1.8	35.9	2.4	0.57

TABLE 60

COMPARISON OF ACT COMPOSITE, WEIGHTED COMMON EXAMINATIONS SCORES OF THE NTE, AND F-SCALE SCORES FOR FIRST YEAR B.S. GRADUATES 1979-81

Test	1979			1980			1981			F-Ratio
	N	$\bar{x}$	SD	N	$\bar{x}$	SD	N	$\bar{x}$	SD	
ACT	31	18.5	4.6	11	16.0	4.1	10	17.2	3.6	1.37
NTE	38	573.9	71.9	14	565.5	91.8	9	518.3	67.0	1.94
F-Scale	36	109.1	17.0	15	111.5	16.4	10	107.9	20.4	0.15

TABLE 61

COMPARISON OF MEAN PRINCIPALS RATINGS FOR FIRST YEAR B.S. GRADUATES 1979-81

Factor	1979(N=39)		1980(N=16)		1981(N=7)		F-Ratio
	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD	
I Subject Matter Competence	4.3	0.7	4.3	0.7	4.4	0.5	0.18
II Relations with Students	4.3	0.9	4.5	0.7	4.4	0.5	0.41
III Appropriateness of Assignments	4.2	0.8	4.4	0.5	4.4	0.5	0.67
IV Overall Effectiveness	4.2	0.7	4.4	0.6	4.4	0.5	0.40

TABLE 62

COMPARISON OF MEAN SET-I SCORES FOR FIRST YEAR B.S. GRADUATES 1979-81

Factor	1979(N=24)		1980(N=11)		1981(N=3)		F-Ratio
	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD	
I Friendly and Cheerful	323.7	49.1	329.0	59.3	354.7	9.0	0.50
II Knowledgeable and Poised	335.7	31.8	327.1	45.7	327.0	48.8	0.23
III Lively and Interesting	287.3	56.8	293.9	68.7	331.7	22.0	0.75
IV Firm Control (Discipline)	301.0	47.7	318.3	57.4	269.7	56.0	1.14
V Non-Directive (Democratic Process)	239.8	61.7	256.3	60.2	241.3	13.3	0.30
Composite Score	297.5	36.2	304.9	39.7	280.3	45.5	0.51

three. There were no significant differences in the six variables across the three groups. It was noted that there was a trend toward the 1981 graduates receiving higher scores on the factors of Friendly and Cheerful and Lively and Interesting when compared with the other two groups. Comparisons of SET-II scores (Table 63) indicated no significant differences in the three groups. There were no trends evident in the data. It should be noted that the sample sizes for the 1980 and 1981 groups were limited to four cases.

Table 64 shows mean ratios from the use of Flanders Interaction Analysis. The 1979 graduates in their first year in the study used significantly less lecturing than did the other two groups. No explanation can be offered for this phenomena. There were no other significant differences in the three groups on the other four ratios, and no trends were in evidence.

There were no significant differences in mean ratings from the administration of the Classroom Observation Record across the three groups (Table 65). However, over the three year period the mean scores for each of the three factors have increased slightly. A similar pattern was noted for the results from the administration of the Tuckman Teacher Feedback Form (Table 66).

In summary there were few differences across the three different groups of B.S. graduates. In general NTE scores have decreased but other scores and ratings from the instrumentation would tend to indicate that the 1981 graduates were perceived as better teachers in their first year of teaching than the other groups. The reader should keep in mind that the sample size of 1981 graduates was ten or less. This could lead to invalid conclusions.

Comparison of First Year M.A. Graduates 1979-81

This section contains a summary of the results of comparisons of first year M.A. graduates for the period 1979 through 1981. The analysis of variance technique was employed to determine differences between the three groups.

Table 67 shows a comparison of scores from the ACT, NTE, and F-scale for the three groups. There were no significant differences in the three groups on the three variables. The 1980 and 1981 groups had achieved higher mean scores on the NTE than did the 1979 group. Also, it was noted that the 1981 group had achieved a higher ACT score than the other groups.

Mean ratings given by principals are shown in Table 68. There were no significant differences in the three groups on each of the four variables under study.

Results of administering the SET-I are shown in Table 69. There were no significant differences among the three groups. In general, the 1981 group was rated higher on the six factors than the other groups. Table 70 shows the results of administering the SET-II. Again, there were no significant differences in the three groups; however, the 1981 group was rated higher than the other two groups.

TABLE 63

COMPARISON OF MEAN SET-II SCORES FOR FIRST YEAR B.S. GRADUATES 1981-82

Factor	1979(N=15)		1980(N=4)		1981(N=4)		F-Ratio
	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD	
I Rapport	5.61	0.43	6.06	0.09	5.24	0.11	5.03*
II Interactional Competence	4.46	0.31	4.89	0.65	4.43	0.27	2.24
III Stimulating Interaction Style (Comb. of I & II)	10.07	0.62	10.96	0.73	9.67	0.21	5.02*
IV Unreasonable Negativity	8.56	0.75	8.97	0.80	9.32	0.24	2.04
V Fosterance of Self-Esteem	6.77	0.51	6.74	1.27	5.64	2.15	1.87

* Significant difference at the .05 level.

TABLE 64

COMPARISON OF MEAN FLANDERS RATIOS FOR FIRST YEAR B.S. GRADUATES 1979-81

Ratio	1979(N=40)		1980(N=16)		1981(N=10)		F-Ratio
	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD	
I/D	1.23	1.94	0.90	0.56	1.15	1.74	0.24
i/d	0.49	0.32	0.71	0.44	0.68	0.61	2.14
ST/TT	0.82	0.93	0.91	0.99	0.47	0.25	0.82
Si?/Tot	0.71	0.74	0.95	1.53	0.52	0.45	0.64
Lec/Tot	0.52	0.16	0.33	0.16	0.31	0.13	13.44**

**Significant difference at the .01 level.

TABLE 65

COMPARISON OF MEAN COR SCORES FOR FIRST YEAR B.S. GRADUATES 1979-81

Factor	1979(N=40)		1980(N=16)		1981(N=10)		F-Ratio
	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD	
I	39.4	4.8	40.3	3.6	42.0	1.6	1.60
II	60.9	7.5	62.3	4.6	64.4	2.3	1.60
III	21.1	2.9	22.0	2.7	22.9	2.0	1.58

TABLE 66

COMPARISON OF MEAN TUCKMAN SCORES FOR FIRST YEAR B.S. GRADUATES

Factor	1979(N=40) $\bar{x}$	1979(N=40) SD	1980(N=15) $\bar{x}$	1980(N=15) SD	1981(N=10) $\bar{x}$	1981(N=10) SD	F-Ratio
I Creativity	25.8	5.5	28.2	4.1	29.4	7.1	2.36
II Dynamism (Dominance of Energy)	25.8	5.1	31.6	5.0	33.6	4.5	13.86**
III Organized Demeanor (Organization and Control)	31.4	5.4	33.9	2.7	35.3	2.7	3.69*
IV Warmth and Acceptance	33.1	6.4	34.9	3.4	35.3	2.3	1.03

*Significant difference at the .05 level.
**Significant difference at the .01 level.

TABLE 67

COMPARISON OF ACT COMPOSITE, WEIGHTED COMMON EXAMINATIONS SCORES OF THE NTE, AND F-SCALE SCORES FOR FIRST YEAR M.A. GRADUATES 1979-81

Test	1979 N	1979 $\bar{x}$	1979 SD	1980 N	1980 $\bar{x}$	1980 SD	1981 N	1981 $\bar{x}$	1981 SD	F-Ratio
ACT	13	16.9	4.6	18	18.7	5.3	14	19.6	4.3	1.10
NTE	9	522.4	71.8	16	567.8	85.3	9	566.1	68.5	1.09
F-Scale	16	105.6	20.3	38	95.2	23.6	30	106.0	21.4	1.94

TABLE 68

COMPARISON OF MEAN PRINCIPALS' RATINGS FOR FIRST YEAR M.A. GRADUATES 1979-81

Factor	1979(N=18)		1980(N=39)		1981(N=33)		F-Ratio
	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	
I Subject Matter Competence	4.4	0.6	4.3	0.7	4.4	0.6	0.19
II Relations with Students	4.7	0.5	4.5	0.7	4.5	0.7	1.14
III Appropriateness of Assignments	4.4	0.6	4.2	0.6	4.3	0.6	1.22
IV Overall Effectiveness	4.5	0.6	4.3	0.5	4.3	0.6	0.61

TABLE 69

COMPARISON OF MEAN SET-I SCORES FOR FIRST YEAR M.A. GRADUATES 1979-81

Factor	1979(N=6)		1980(N=26)		1981(N=23)		F-Ratio
	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	
I Friendly and Cheerful	348.0	29.7	344.0	65.5	355.1	27.6	1.49
II Knowledgeable and Poised	350.3	14.0	350.5	33.3	359.6	14.7	1.58
III Lively and Interesting	307.2	40.8	287.7	50.1	307.4	44.3	1.21
IV Firm Control (Discipline)	316.0	45.0	309.6	48.1	311.5	34.2	1.23
V Non-Directive (Democratic Process)	252.8	49.6	253.5	52.6	268.2	33.0	1.83
Composite Score	315.0	25.5	309.6	29.7	317.7	20.4	1.51

TABLE 70

COMPARISON OF MEAN SET-II SCORES FOR FIRST YEAR M.A. GRADUATES 1979-81

Factor	1979(N=12) $\bar{x}$	1979(N=12) SD	1980(N=12) $\bar{x}$	1980(N=12) SD	1981(N=8) $\bar{x}$	1981(N=8) SD	F-Ratio
I Rapport	5.05	1.50	5.39	0.50	6.07	1.08	2.04
II Interactional Competence	3.98	1.26	4.45	0.73	4.46	0.52	0.95
III Stimulating Interaction Style (Comb. of I & II)	9.71	0.86	9.84	0.95	10.54	1.43	1.61
IV Unreasonable Negativity	8.88	0.72	8.19	1.47	9.26	1.14	2.23
V Fosterance of Self-Esteem	6.96	0.55	6.68	0.52	6.64	1.05	1.37

TABLE 71

COMPARISON OF MEAN FLANDERS RATIOS FOR FIRST YEAR M.A. GRADUATES 1979-81

Ratio	1979(N=18)		1980(N=40)		1981(N=32)		F-Ratio
	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD	
I/D	1.12	0.97	1.02	1.35	1.21	1.68	0.16
i/d	0.55	0.34	0.59	0.36	0.52	0.48	0.30
ST/TT	0.65	0.39	0.71	0.67	0.50	0.37	1.44
Sil/Tot	0.83	0.72	1.02	2.43	0.30	0.33	1.72
Iec/Tot	0.51	0.18	0.39	0.16	0.48	0.24	3.00

TABLE 72

COMPARISON OF MEAN COR SCORES FOR FIRST YEAR M.A. GRADUATES 1979-81

Factor	1979(N=18)		1980(N=40)		1981(N=33)		F-Ratio
	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD	
I	40.8	3.9	41.1	3.4	42.2	1.4	1.71
II	61.7	8.3	65.0	3.7	66.1	3.0	5.14**
III	21.4	2.9	22.8	2.6	23.6	1.7	4.83**

**Significant difference at the .01 level.

TABLE 73

COMPARISON OF MEAN TUCKMAN SCORES FOR FIRST YEAR M.A. GRADUATES 1979-81

Factor	1979(N=18) $\bar{x}$	1979(N=18) SD	1980(N=40) $\bar{x}$	1980(N=40) SD	1981(N=32) $\bar{x}$	1981(N=32) SD	F-Ratio
I Creativity	28.3	6.0	28.9	6.8	31.5	5.5	2.04
II Dynamism (Dominance of Energy)	29.4	4.9	30.7	6.7	33.8	3.7	4.64*
III Organized Demeanor (Organization and Control)	33.4	4.8	34.3	4.0	36.3	1.8	4.66*
IV Warmth and Acceptance	33.7	5.2	34.4	4.0	35.9	2.3	2.49

*Significant difference at the .01 level.

Table 71 shows the mean ratios from use of Flanders Interaction Analysis in the classrooms of the subjects. There were no significant differences across the three groups for the five ratios. The results obtained from use of the Classroom Observation Record are shown in Table 72. The 1981 group achieved higher mean scores on all three factors when compared with the other two groups. The 1981 group had achieved significantly higher scores ($p < .05$) than the 1979 group on the factors of teacher affective behavior and pupil behavior. An examination of the results of the use of the Tuckman Teacher Feedback Form (Table 73) indicated that the 1981 group had achieved higher scores on all factors. The group had achieved significantly higher scores over the 1979 group on the factors of Dynamism and Organized Demeanor. The results achieved by use of the COR and Tuckman were similar.

In summary, there were few significant differences across the three groups of M.A. graduates. In general, the 1981 graduates achieved higher scores and ratings than the other groups.

Summary

This chapter contains an overview of the results of the ninth year of the application of the Tennessee Technological University Teacher Evaluation Model to 1981 graduates of the teacher education programs. Due to the limited number of graduates at the B.S. level who have obtained teaching positions in the geographical area covered by the evaluation project, the sample size was limited. Therefore, data analyses were limited, and the validity of any conclusions may be questioned.

The majority of the subjects were teaching at the elementary level. Therefore, data analyses for secondary teachers were omitted. Correlational analyses of the variables for the two groups were similar to those reported in earlier years of the study. Career base line data for the two groups were similar to those reported in the past three years, and there were no significant differences. An examination of the various measures indicated that there were no significant differences between the first year B.S. and M.A. graduates. However, the M.A. graduates generally achieved higher scores and ratings. Comparisons of first year B.S. graduates for the period 1979 through 1981 indicated that the later group tended to receive higher ratings and scores. Similar results were evident for the M.A. graduates.

CHAPTER IV

SUMMARIES OF SPECIAL STUDIES

Throughout the course of the operation of the Tennessee Technological University Teacher Evaluation Model numerous special studies have been conducted and papers disseminated through the professional literature at regional and national meetings and as internal documents within the University. The Appendix of this report contains a complete listing of all papers published in the professional literature, presented at professional meetings, or prepared for internal distribution. This chapter consists of summaries and abstracts of five papers and special studies completed or nearing complettion during the current year. In addition to these papers, special studies are underway of those individuals who were teachers of special education, kindergarten, mathematics, social studies, reading, music, or science during their first year of participation in the followup study. These studies will be completed during 1982-83. Complete copies of all papers and reports are available through the Office of the Associate Dean of the College of Education of the University.

Normative Information[1]

During the course of the nine years of the operation of the Tennessee Technological University Teacher Evaluation Model data have been collected from 429 subjects. In some cases data were collected over a period of as many as five years. Therefore, a total of over 800 observations were possible on some instruments.

In order to help individuals to improve their teaching and to provide additional information for the project, percentile norms were developed on selected instruments based on the total set of observations made using a particular instrument. It was felt that this information will be of value to future researchers and supplements the normative information presented in 1979 (1).

Table 74 contains normative information for the California F-Scale forms 45 and 40, the Student Evaluation of Teacher - I and the Student Evaluation of Teacher-II. Following is a listing of the factor names for the two instruments.

SET-I-I	Friendly and Cheerful
SET-I-II	Knowledgeable and Poised
SET-I-III	Lively and Interesting
SET-I-IV	Firm Control (Discipline)
SET-I-V	Non-Directive (Democratic Procedure)
SET-I-TOT	Composite Score
SET-II-I	Rapport
SET-II-II	Interactional Competence
SET-II-III	Stimulating Interaction Style (Combination of I and II)
SET-II-IV	Unreasonable Negativity
SET-II-V	Fosterance of Self-Esteem

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[1]Internal report prepared by Jerry B. Ayers, Associate Dean, College of Education, Tennessee Technological University.

TABLE 74

NORMATIVE DATA (PERCENTILES, MEANS, SD, RANGE) FOR F-SCALE AND STUDENT EVALUATION OF TEACHING

Percentile	F-Scale	SET-I						SET-II				
		I	II	III	IV	V	TOT	I	II	III	IV	V
10	74	274	299	233	253	185	264	5.00	4.00	8.98	6.90	5.94
20	83	299	319	252	269	204	279	5.05	4.16	9.21	7.40	6.17
30	89	321	329	271	280	223	290	5.20	4.30	9.48	7.90	6.40
40	95	330	338	289	288	236	298	5.32	4.43	9.68	8.19	6.54
50	101	342	345	299	297	249	305	5.49	4.56	9.90	8.52	6.71
60	107	350	352	313	307	262	313	5.64	4.67	10.08	8.77	6.88
70	113	361	358	324	318	279	322	5.83	4.79	10.29	8.97	6.98
80	120	370	365	337	332	294	328	6.06	4.98	10.53	9.27	7.28
90	128	382	376	353	348	320	341	6.34	5.19	10.77	9.49	7.49
N	383	501	500	500	499	500	502	268	264	260	264	260
$\bar{X}$	101.6	334.3	340.5	294.8	299.4	251.3	304.2	5.59	4.63	9.87	8.26	6.69
SD	21.5	44.3	33.6	49.8	40.9	50.3	32.4	0.57	0.54	0.67	1.18	0.65
MIN	44	118	147	115	110	133	130	4.18	4.00	8.00	4.54	4.05
MAX	177	400	400	400	400	400	400	7.70	8.00	11.00	9.86	7.94

TABLE 75

NORMATIVE DATA (PERCENTILES, MEANS, SD, RANGE) FOR OBSERVATION INSTRUMENTS

Percentile	Tuckman				Flander's Interaction Analysis					Classroom Observation Record Factors		
	I	II	III	IV	I/D	i/d	ST/TT	Sil/Tot	Lec/Tot	I	II	III
10	20	21	28	27	0.23	0.19	0.21	0.13	0.21	33	52	17
20	22	22	30	31	0.38	0.29	0.30	0.17	0.28	37	57	19
30	24	25	31	33	0.51	0.37	0.35	0.20	0.34	39	61	21
40	26	28	33	34	0.66	0.44	0.41	0.25	0.39	40	63	22
50	28	29	34	35	0.84	0.55	0.46	0.31	0.44	41	65	23
60	30	32	35	36	1.04	0.66	0.52	0.38	0.51	42	66	23
70	32	34	36	37	1.32	0.76	0.59	0.45	0.57	43	67	24
80	34	35	37	39	1.68	0.95	0.68	0.56	0.64	45	70	25
90	36	36	39	41	2.33	1.22	0.80	0.71	0.75	47	73	26
N	561	568	563	562	763	760	760	763	763	807	801	805
$\bar{X}$	28.5	29.7	34.3	35.0	1.08	0.64	0.49	0.37	0.47	41.3	63.7	22.5
SD	5.8	5.6	4.5	4.9	0.84	0.41	0.21	0.22	0.20	5.1	7.7	3.2
MIN	19	19	19	20	0.10	0.10	0.10	0.10	0.11	21	36	12
MAX	43	42	43	43	4.00	2.00	1.00	0.98	0.97	49	77	28

Table 75 shows similar information for the data collected relative to the Tuckman Teacher Feedback Form, Flanders Interaction Analysis, and the Classroom Observation Record. Following is a further explanation of the symbols used in the table.

Tuckman-I	Creativity
Tuckman-II	Dynamism (Dominance of Energy)
Tuckman-III	Organized Demeanor (Organization and Control)
Tuckman-IV	Warmth and Acceptance
COR-I	Teacher Cognitive Behavior
COR-II	Teacher Affective Behavior
COR-III	Pupil Behavior

Reference

1. Ayers, Jerry B. Report 79-2. Tennessee Technological University Teacher Evaluation Model-Year VI. Cookeville, TN: Tennessee Technological University, College of Education, 1979, pp. 43-45. ERIC Document No. 179 535.

A Study of First Year Literature Teachers[2]

For the past ten years Tennessee Technological University has been conducting a longitudinal followup study of the graduates of its teacher preparation programs. Each year a new group of individuals who have completed the baccalaureate program for the preparation of teachers and who were in their first year of teaching have agreed to participate in the study. Information about the graduates has been collected by mail questionnaires, through interviews with principals (or supervisors), by direct observation in their classrooms, and from an instrument administered to their students. The purpose of this paper was to present the results of a study of 21 first year teachers who were teaching literature in grades 7 through 12.

Findings of the study indicated that the individuals had achieved mean undergraduate quality point averages and National Teacher Examinations scores comparable with those of the total group of 468 graduates who had participated in the study since its inception. The mean score on the California F-Scale for the group indicated that as a whole they were non-authoritarian in their beliefs. The mean rating by principals of the overall effectiveness of the teachers was 4.2 (on a scale of 1=less effective to 5=highly effective). This was comparable to the mean for the total group. An examination of student ratings revealed similar results. Application of the ten category Flanders Interaction Analysis in the subjects' classrooms indicated the group as a whole was using more indirect teaching techniques than were other teachers in grades 7 through 12. The correlation patterns of the variables for the literature teachers were similar to the patterns for the total group of teachers studied.

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[2]Abstract of a paper prepared by Jerry B. Ayers, College of Education, Tennessee Technological University, 1982.

Student and principal ratings were converted to z-scores and summed to obtain an overall measure of teacher effectiveness. The six (28 percent) highest and six lowest rated teachers were selected for further study. Application of the ANOVA indicated the higher rated group of teachers used significantly more indirect teaching techniques than did the lower rated teachers.

The full results of the study have implications for both the preservice and inservice training of teachers. Suggestions for improving the teaching of literature in the junior and senior high schools in the United States will be discussed.

Use of Interaction Analysis in Teacher Education Followup Studies[3]

Tennessee Technological University has been engaged for the past eight years in a longitudinal followup study of graduates of its teacher education programs. Data about the graduates have been gathered by use of a variety of instrumentation including the ten category Flanders System of Interaction Analysis. Use of the Flanders System coupled with other data has provided a means to test the hypotheses that good teaching (1) utilizes maximal involvement of the student in direct experiential situations and (2) encourages maximal freedom for the students. Results of the study have provided data that support the hypotheses. Also, the data have been used in program modification and improvement of the University. The full text of the paper describes the results of the study in detail and provides suggestions for improvement of teacher training programs.

Consistency of Teacher Behavior[4]

The research literature has indicated mixed results when examining the consistency of teacher behavior across time. In a review of the literature published in 1976, Shavelson and Dempsey-Atwood found that there was little consistency of teacher behavior across time. In contrast Myers (1967), Simon (1967), Brophy and Everston (1977) and Pect, et al. (1978), found considerable consistency in teachers' behavior from year to year or across classes.

The purpose of this present study was to examine the consistency of teaching behavior as measured by selected instruments, across time for several groups of teachers who were graduates of the same institution. More specifically, the purpose of this study was to follow a sample of graduates for up to five years utilizing a variety of instruments to measure classroom behavior and consistency of teaching style. The hypothesis there was no consistency in teachers' behavior across years of teaching served as a guide for conducting the study. Three instruments were used in this study that were administered each year to the teachers and included the Student Evaluation of Teaching (Veldman, 1971),

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[3]Abstract of a paper by Jerry B. Ayers, presented in part before the Annual Meeting of the Mid-South Educational Research Association, Lexington, Kentucky, November 1981.

[4]Abstract of a paper prepared by Jerry B. Ayers, Associate Dean, College of Education, Tennessee Technological University, 1981.

a ten-category system of interaction analysis (Amidon and Flanders, 1967), and the Principal's Teacher Evaluation Form (Sandefur, 1970).

Each year from 1973 through 1976 graduates of the teacher preparation programs of Tennessee Technological University have volunteered to participate in the application of the Tennessee Technological University Teacher Evaluation Model. In the fall of each year from 1973 through 1976, all graduates for the past twelve months were sent a questionnaire requesting routine demographic information. All individuals teaching within a 100-mile radius of the University were asked to participate in the longitunial followup study. A total of 133 graduates across the four period agreed to become subjects in the study.

The graduates were visited each year for approximately a half day by trained research assistants for the purpose of collecting data by use of the above instruments. The Principal's instrument was completed by the building principal of each teacher, at least one class of approximately 30 students completed the Student Evaluation of Teaching (this instrument was used only with children above the third grade), and the research assistants collected up to eight 20-minute samples of observations of data using interaction analysis. In order to provide consistency across years in the use of interaction analysis, the research assistants were specially trained using previously prepared video tapes. Each year the graduate assistants worked with the tapes until they had a reliability of up to .90 when compared among themselves and with assistants from the previous year. Previous research has indicated that there were few significant differences across years in the application of the instruments (Ayers, 1978). In order to test the hypothesis that there was no consistency in teacher behavior across years, correlations were computed between first year observations and observations made in each subsequent year. It should be noted that there was an attrition rate of almost 80 percent between the first year and the fifth year individuals in the study.

Results of the study indicated significant correlations of principals' ratings across the first four years on all four factors of the instrument. In general, it was noted that the magnitude of the correlations decreased across time from an order of .60 to .35. However, all correlations were significant at or beyond the .05 level of confidence. Correlations of the first year of principals' ratings with fifth year ratings were not significant. No explanation can be offered for this phenomena.

An examination of the results of the administration of the Student Evaluation of Teaching form across five years indicated that there were significant levels of correlation across each of the four succeeding years with the first year. In general, correlations on each of the five subscales and total score increased in magnitude across the period from an average of .40 to over .80 in the last year.

Interaction analysis data were examined in terms of five ratios of teaching behavior. These included indirect to direct teaching, a revised indirect to direct teaching, student talk to total teaching, silence to total teaching, and lecturing to total teaching. Significant correlations were noted for all factors across the period except for the silence to

total teaching ratio. It should be noted that the subjects in this study ranged from first to twelfth grade teachers, and each year they were in the study they may have been teaching in a different area or a different subject. Therefore, it would be expected that there would be little or no correlations for this variable.

The results of the study indicated that there was a considerable amount of individual stability in important aspects of teaching behavior across up to five years. Thus, the hypothesis of no consistency in teacher behavior across five years of teaching was rejected. The results of this study coupled with other studies, leads to the conclusion that teachers' style may be developed early in their careers. Thus, measures taken in the first year after entering teaching may be a reasonable predictor of later success in the profession. It appeared that the data collected as a part of this study has implications for the development of inservice programs and intervention programs for the retraining of teachers.

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Verbal Interaction Patterns in the Classrooms of Selected K-3 Teachers[5]

In 1973 the Tennessee Technological University Teacher Evaluation Model was initiated to evaluate the "students enrolled in and graduates of the teacher preparation programs at Tennessee Technological University" (Ayers, 1974). From 1973 through 1980, 386 graduates who completed either the B.S. in a teacher preparation program at the University or who completed the M.A. with primary emphasis in teaching, have volunteered participation in the study. Seventy-five female individuals who had taught one or more years in grades K-3 were selected for this study. Demographic information was collected from each participant via the U.S. mail, and each participant was visited during their first year of teaching by a specially trained graduate assistant from the University. The graduate assistant observed each participant utilizing the ten-category Flanders Interaction Analysis system. In addition, the Student Evaluation of Teachers (SET-II) was administered to the students of each participant at an appropriate time during the half-day visit, and each participant completed the California F-Scale, Forms 45 and 40. The verbal classroom behavior derived from the Flanders system was classified and recorded into one of the ten categories for each three-second interval. Several 20-minute observations were obtained on each participant. All data were then tabulated and converted to a 10 x 10 matrix. Percentages and ratios were determined for each of the categories.

From the 75 K-3 participants, 49 individuals were selected as subjects for this study. Each subject successfully met the following criteria: (1) each had completed the California F-Scale during her first year of teaching, (2) scores were available from administration of the SET-II, and (3) each had taught in a regular, self-contained classroom. Subjects were then divided into two samples, based on the sum of the two sets of z scores obtained from the F-Scale and the SET-II. The 16 subjects (33 percent) which received the higher z scores were designated as the "high" or the effective sample. The other sample which consisted of those 16 who received the lower z scores was designated as the "low" or less effective sample.

Nine hypotheses were tested in order to determine whether any significant differences existed between the two samples. Of the nine hypotheses, six dealt with ratios regarding the amount of time specific behaviors were occurring in the two sets of classrooms. From these six hypotheses, only one was supported by a test of the difference of means for the two samples. Hypothesis V revealed that a significant difference existed between the high and low samples in regard to the amount of lecture which was occurring in each of the two sets of classrooms. The low sample of subjects was found to use greater amounts of lecture when compared to the amount of lecture used by the high sample. An additional hypothesis dealt with the percentage of classroom time spent in each of the ten categories of classroom behavior. It was concluded from the data provided that a significant difference occurred in regard to the amount of time the two samples spent giving directions in their classrooms. The high sample used significantly greater amounts of giving directions than did the low sample. The remaining hypothesis revealed no significant difference between the two samples of subjects.

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[5]Abstract of M.A. Problem Paper prepared by Janie Marie Evans, Graduate Assistant, College of Education, Tennessee Technological University, 1982.

The following conclusions were drawn from an analysis of the data:

(1) The teachers' use of the category known as giving directions was significantly different for the two samples at the 0.05 level. Teachers in the high sample used this category of behavior significantly more than teachers in the low sample.

(2) No significant difference was found to exist between the two samples in regard to the ratios of indirect influence to direct influence (I/D).

(3) An analysis of the revised Indirect/Direct ratio (i/d) revealed that the difference between the two samples did not reach a significant level of difference.

(4) No significant difference was found to exist between the high and low samples in regard to the ratio of student talk to total teacher talk (ST/TT).

(5) An analysis of the data clearly showed that a significant difference occurred between the two samples in regard to the use of lecture in the classroom. The low sample of subjects used lecture more often than did the high sample of subjects.

(6) The ratio of silence to total teacher talk (Sil/Tot) was not supported by a test of the difference of the means. Therefore, no significant difference occurred between the two samples in regard to the amount of silence occurring as compared to total teaching time.

(7) No difference was found to exist between the two samples in regard to the ratio of direct teacher influence to student talk.

(8) The ratio of the percentage of tallies in the steady-state cells to the percentage of tallies in the traditional cells was not supported by a test of the difference of means for the two samples.

(9) Each of the two samples of K-3 teachers used extended indirect influence less than any other type of behavior.

(10) Each of the two samples of K-3 teachers used extended direct influence to a greater extent than extended indirect influence. The high sample used extended direct influence almost three times as much as the low sample.

(11) Although extended student talk constituted approximately 30 percent of all recorded behavior in each of the classrooms, extended teacher talk constituted almost 50 percent of all recorded behavior in each of the two classrooms.

(12) For each sample, indirect responses to student comments were recorded more frequently than direct responses to student comments.

(13) For each sample, one fourth of all the tallies recorded represented periods of silence or confusion occurring in the classroom.

Based on the results of this study, the following recommendations were made with regard to how teachers might improve their performance in the classroom and in turn the level of achievement of their students. The recommendations made can be accomplished through inservice training for teachers.

(1) More time should be devoted to the acceptance and clarification of students' feelings.

(2) Praise and encouragement of student actions and behavior should be utilized to a greater extent.

(3) More classroom time should be given to the acceptance and use of student contributions or ideas.

(4) Indirect methods of instruction should consume more of the classroom time and simultaneously reduce the amount of time devoted to lecture and giving directions in the classroom.

(5) Less time should be spent criticizing student behavior.

(6) Encouragement of student-initiated talk should be given considerably greater attention.

(7) Periods of silence or confusion should consume less of the classroom time.

Even though the study was based on a very limited sample of subjects, it was felt warranted to make several recommendations that might assist the faculty and administration in revising the teacher preparation programs of Tennessee Technological University.

(1) Specific instruction dealing with the aspects of student-teacher relations should be implemented into the teacher preparation program at the University.

(2) Increased attention should be given in the teacher preparation courses to the various forms of teacher influence. Acknowledgement and a detailed look at the research which cites the relationship between direct and indirect forms of influence and the academic gains noted by the students should be examined.

(3) Courses or practicums should be offered to students which involve actual observations of various classroom teaching situations recorded on video tapes. Students should study tapes, discuss situations, and then role play alternative forms of behaviors.

(4) Tape all students who are practice teachers (student teachers, practicum students, etc.) for their own self-evaluation. Let students categorize their behavior and describe the amount of time spent in each area.

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CHAPTER V

SUMMARY, CONCLUSIONS, RECOMMENDATIONS, AND FUTURE PLANS

The objectives of Chapter V were fourfold: (1) a presentation of a brief summary of the total evaluation study conducted in 1981-82; (2) a summary of the major conclusions of the study for the year; (3) to present recommendations based on the conclusions of the study; and (4) to provide a summary of the plans for the continuation of the study during 1982-83.

Summary

Three groups of subjects (graduates of the teacher education programs of Tennessee Technological University) were used in the study. The sample size by year of graduation was as follows: 1979--13, 1980--27, and 1981--47 (including 13 B.S. and 34 M.A. graduates). Detailed data were collected on each subject by use of standardized instruments and specially constructed questionnaires administered by trained graduate research assistants. Also, personal data about each graduate were collected from University records. Basic instrumentation and procedures for the study were pilot tested during the first year and have remained virtually unchanged. The current year included: (1) University permanent records and transcript information; (2) principal's evaluation of each subject; (3) administration of the California F-Scale (to those individuals participating in the study for the first time) to measure individual prejudices and and anti-democratic tendencies; (4) administration of the Classroom Observation Record and the Tuckman Teacher Feedback Form; (5) administration of one form of the Student Evaluation of Teaching to the students of the subjects; and (6) a ten category interaction analysis system to record observed classroom behavior. All data obtained in the study were classified, coded, and keypunched for analyses. Descriptive statistics, intercorrelations, and comparisons were computed. The findings of the study were divided into five major parts including comparisons of first year graduates from 1973 through 1980, comparisons of all first year graduates (1973 through 1980) by teaching (elementary or secondary) and degree level, comparison of 1979 graduates across three years by degree level, comparison of 1981 B.S. and M.A. graduates, and a comparison of first year 1979 through 1981 graduates by degree level.

A study of the first year graduates from the period 1973 through 1980 indicated that both first year B.S. and M.A. graduates appeared similar in their first year of teaching after receiving their degree. The M.A. graduates had completed a mean of 5.5 years of teaching prior to entering the study, whereas the B.S. graduates were in their first full year of teaching. The correlational pattern of years of experience with the variables under study revealed a significant positive relationship with the Lecture/Total Teaching ratio from the Flanders and a significant negative relationship with the Indirect/Direct ratio. Although the trends were not significant, in general scores and ratings have decreased over the eight year period. In many cases B.S. graduates were rated slightly higher than M.A. graduates. The results of the use of correlational analyses indicated that the principals, students, and independent observers were in agreement over the ratings that had been given the graduates. It appeared the graduates were functioning at a level that was comparable to national samples.

The results of the study of first year elementary and secondary graduates (1973-80) indicated that, in general, elementary graduates were rated higher than secondary graduates, and B.S. graduates were rated higher than M.A. graduates. In most cases there were no significant differences across teaching level.

An examination of those 1979 graduates who remained in the study for three years indicated they had achieved lower scores on the NTE and ACT and were less authoritarian in their beliefs than the total group that entered the study in 1979. This was true for both the B.S. and M.A. groups. Principal ratings generally increased across time with M.A. individuals being rated higher than the B.S. group. Student ratings across time increased for the B.S. group and decreased for the M.A. group. Results of the use of interaction analysis indicated that the groups achieved less satisfactory scores during their third year when compared with first year observations. In comparison, results of the use of the Classroom Observation Record and the Tuckman Teacher Feedback Form suggested that the individuals in both groups were functioning at their highest level during the third year after receiving their degree.

The study of 1979 through 1981 first year graduates and comparisons of 1981 B.S. and M.A. graduates indicated that the majority of the subjects were teaching at the elementary level. Correlational analyses of the variables for the two groups were similar to those reported in earlier years of the study. Career base line data for the two groups were similar to those reported in the past three years, and there were no significant differences. An examination of the various measures indicated that there were no significant differences between the first year B.S. and M.A. graduates. However, the M.A. graduates generally achieved higher scores and ratings. Comparisons of first year B.S. graduates for the period 1979 through 1981 indicated that the later group tended to receive higher ratings and scores. Similar results were evident for the M.A. graduates.

Based on the findings of the study, several conclusions were advanced and recommendations made for continuation of the study. These follow in the next three sections.

Conclusions

Following are the major conclusions of the study based on the findings of the ninth year of operation of the project. Additional analyses of the data are planned that may make other conclusions warranted. This section is divided into three parts: Use of the Evaluation Model, Evaluation of 1981 Graduates, and Comparisons of Data Across Time.

Use of the Evaluation Model

(1) The plan of evaluation outlined in this report appeared to be useful in gathering information for modifying and improving the programs of teacher education at Tennessee Technological University.

(2) Instrumentation employed in the study appeared to be valid and provided essential information with regard to the graduates of the teacher education programs.

(3) Modifications can be made in the original model that can lead to more valid and useful information for an institution wishing to replicate the plan of evaluation.

(4) Better methods are needed for training of the research assistants in the use of the various observation instruments. It was felt some of the significant differences noted in the study may have been due to invalid or unreliable observations.

Evaluation of 1981 Graduates

(1) The B.S. and M.A. subjects who participated in the study for the first year in 1981-82 appeared to exhibit characteristics similar to their counterparts who had participated in earlier phases of the project.

(2) B.S. subjects who participated in the study in the first year during 1981-82 had achieved mean scores on the ACT prior to entering the University that were lower when compared to other students who entered the University in 1978.

(3) Principals' ratings of performance of the graduates tended to agree with the data collected through the use of the Student Evaluation of Teaching, the Student Evaluation of Teacher, the Classroom Observation Record, and the Tuckman Teacher Feedback Form.

(4) In general, first year M.A. subjects received comparable or higher ratings on all variables than B.S. subjects. Even though the differences were generally not significant, there was a definite trend indicating that individuals receiving the master's degree were better prepared at the time of entrance into the classroom.

(5) Based on the results of the use of the Student Evaluation of Teaching, students of the subjects perceived them as being highly knowledgeable and poised; and on the negative side more directive than non-directive in their teaching.

(6) Overall scores achieved by the subjects on the National Teacher Examinations placed the individuals at or slightly below the 50th percentile which is comparable to other groups of graduates who have participated in the study.

(7) Many of the characteristics reported in the literature of good teachers were noted as a result of the administration of the Classroom Observation Record.

(8) The subjects in the study appeared to be using more indirect than direct teaching in their classrooms. Indirect/Direct ratios, based on the interaction analysis system used were higher than for other comparable groups of teachers. However, over the last three years there has been a gradual decrease in the apparent amount of indirect teaching going on in the classrooms of the graduates.

(9) B.S. graduates appeared to be more authoritarian in their beliefs than M.A. graduates. This is a reversable of results from earlier years of the study.

In general, the subjects of this study possessed many of the characteristics of good teachers as reported in the literature. As might be expected, it was difficult to identify specific problems. Principals praised the subjects as did their students. However, it must be kept in mind that the subjects who participated in this study were volunteers. Therefore, some bias was introduced into the total study that may make some of the conclusions and findings invalid when applied to the total population of graduates.

Comparisons of Data Across Time

(1) Even though the differences were not significant, scores derived from the instrumentation indicated that 1981 B.S. and M.A. first year teachers were slightly better than corresponding 1979 first year teachers, at the elementary level.

(2) There were no significant differences in scores and ratings for all first year B.S. and M.A. graduates from 1973 through 1980.

(3) There were no significant differences, with minor exceptions, in scores and ratings for both first year B.S. and M.A. elementary and secondary graduates over the periods from 1977 through 1980.

(4) There were no significant differences, with minor exceptions, in scores and ratings for 1979 B.S. and M.A. graduates who were followed for three years.

Recommendations

Based on the conclusions of the study, it was felt the following recommendations were warranted. These recommendations centered largely around the continuation and modification of the study omitted in this report. It was left to the reader to make recommendations relative to his/her individual problems and concerns and toward needed changes in the teacher education program of the institution.

(1) The basic plan outlined in this report should be replicated during 1982-83 adding another group of subjects who completed the B.S. or M.A. requirements in 1982.

(2) Continuing contact should be maintained with other institutions and agencies pursuing similar projects and the literature related to teacher evaluation should be continuously monitored.

(3) Consideration should be given to the use of other instruments to gather data and/or to other modifications in the basic design of the evaluation project.

(4) Further analyses of the data should be made employing more sophisticated statistical techniques.

(5) Faculty of the University and other individuals should be encouraged to review the report and to request additional data analyses to fit their individual needs.

(6) Uses of the data in the development and modification of curricula should be encouraged by the administration of the University.

(7) Better methods should be developed to optimize the participation of subjects in the project.

(8) A more extensive data bank of information on all students in the teacher education programs should be established. Thereafter, a more meaningful study can be made in relation to predicting the success of graduates in teaching.

(9) Other studies supportive of the evaluation model should be initiated.

(10) Work should continue on the development of other phases of the total evaluation project, i.e., instrumentation for use with Ed.S. level graduates in the classroom and those individuals who complete graduate programs in the field of Pupil Personnel Services and are working in the field in such positions as principals, supervisors, counselors, and superintendents.

Plans for the Continuation of the Study During 1982-83

During 1982-83, particular emphasis will be placed on studies of graduates of the teacher education programs for the period 1980 through 1982. Subjects who graduated prior to 1980 will be dropped from further study as per the design of the project or because of financial constraints. The potential population of 1980 and 1981 graduates was 74. In addition, a sample of approximately 50 to 60 1982 graduates will be added to the study.

Figure 2, page 4, shows an abbreviated chart for the major activities of the project during 1981-82. This same plan will be followed during 1982-83. Initially, two graduate assistants will engage in intensive studies of the use of the classroom observational instruments between September 13 through approximately October 15. Concurrent with these activities, a schedule of visitations will be developed for the 1980 and 1981 graduates that have previously participated in the study. Of the 74 individuals who have previously participated in the study, it is anticipated that about 35 will drop out of the study for a variety of reasons. The remaining subjects will be visited starting about October 20 and continue into December or early January 1983.

During the first week in October 1982, a survey questionnaire will be sent to all 1982 graduates (fall 1981, winter 1982, spring 1982, and summer 1982) of the teacher education programs of the University. All 1982 B.S./B.A. and M.A. teacher education graduates teaching within a 60-70 mile radius of the University will be asked to participate in the study. It is anticipated that a sample of 20 to 25 B.S./B.A. graduates and 30 to 35 M.A. graduates will be selected for inclusion in the study. A schedule of visitation will be prepared in the early winter of 1983, and visits for purposes of observation and gathering baseline data will be carried out during the winter and spring of 1983.

Beginning in the late spring and continuing into the summer of 1983, data analyses will be made and a report of the tenth year activities of the project will be prepared. The report will include detailed comparisons with the results obtained in previous years. During 1982-83 a series of special studies will be completed that will lend extra data to the total project. It is anticipated that a factor analysis study will be made of certain data collected that has not been previously reported because of the financial limitations of the project.

In the past several years other evaluation systems have been developed by such agencies as the Georgia Department of Education. These projects will be studied in depth in 1982-83 with the view of modifying or restructuring the Tennessee Technological University Teacher Evaluation Model in the Fall of 1983.

Long Range Plans

Based on the high level of acceptance by the University and the interest shown by other groups, the project has been integrated into the total operation of the teacher education program. Teacher followup evaluations will continue at the University on an indefinite basis. It is anticipated the project can be improved, and that it can become of greater national significance in the next several years.

APPENDIX

REPORTS AND STUDIES RELATED TO THE TEACHER PREPARATION PROGRAMS OF TENNESSEE TECHNOLOGICAL UNIVERSITY

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